



# भारत का राजपत्र The Gazette of India

प्राधिकार से प्रकाशित  
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इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके  
[Separate paging is given to this Part in order that it may be filed as a separate compilation]

## भाग III—खण्ड 2 [PART III—SECTION 2]

पेटेंट कार्यालय द्वारा जारी की गई पेटेंटों और डिजाइनों से सम्बन्धित अधिसूचनाएं और नोटिस  
[Notifications and Notices Issued by the Patent Office relating to Patents and Designs]

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Calcutta, the 25th April 1992

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234/4, Acharya Jagadish Bose Road,  
Calcutta-700 020.

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पेटेंट कार्यालय

एकस्र तथा अभिकल्प

कलकत्ता, दिनांक 25 अप्रैल 1992

**पेटेंट कार्यालय के कार्यालयों के पते एवं क्षेत्राधिकार**

पेटेंट कार्यालय का प्रधान कार्यालय कलकत्ते में अवस्थित है तथा बम्बई, दिल्ली एवं मद्रास में इसके शाखा कार्यालय हैं, जिनके प्रादेशिक क्षेत्राधिकार जोन के आधार पर निम्न रूप में प्रवर्णित हैं :—

पेटेंट कार्यालय शाखा, टोडी इस्टेट,  
तीसरा तल, लोअर परले (पश्चिम),  
बम्बई-400013 ।

गुजरात, महाराष्ट्र तथा मध्य प्रदेश राज्य  
क्षेत्र एवं संघ शासित क्षेत्र गोवा, दमन तथा  
दिव एवं दावरा और नगर हवेली ।

तार पता—“पेटेंटोफिस”

पेटेंट कार्यालय शाखा,  
एकक सं. 401 से 405, तीसरा तल,  
नगरपालिका बाजार भवन,  
सरस्वती मार्ग, करोल बाग,  
नई दिल्ली-110005 ।

हरियाणा, हिमाचल प्रदेश, जम्मू तथा कश्मीर,  
पंजाब, राजस्थान तथा उत्तर प्रदेश राज्य क्षेत्रों  
एवं संघ शासित क्षेत्र चंडीगढ़ तथा दिल्ली ।

तार पता—“पेटेंटोफिस”

पेटेंट कार्यालय शाखा,  
61, बालाजाह रोड,  
मद्रास-600002 ।

आन्ध्र प्रदेश, कर्नाटक, केरल, तमिलनाडु राज्य  
क्षेत्र एवं संघ शासित क्षेत्र पाण्डिचेरी, लक्काविक्क  
मिनिक्काय तथा अमिनिविक्कि द्वीप

तार पता—“पेटेंटोफिस—

पेटेंट कार्यालय (प्रधान कार्यालय)  
निजाम पैलेस, द्वितीय बहुतलीय कार्यालय,  
भवन, 5, 6 तथा 7वां तल,  
234/4, आचार्य जगदीश बोस रोड,  
कलकत्ता-700020 ।

भारत का शेष क्षेत्र

तार पता—“पेटेंट्स”

पेटेंट अधिनियम, 1970 या पेटेंट नियम, 1972 में अपेक्षित सभी आवेदन पत्र, सूचनाएं, विवरण या अन्य प्रलेख पेटेंट कार्यालय के केवल उपर्युक्त कार्यालय में ही प्राप्त किए जाएंगे ।

शुल्क :—शुल्कों की अदायगी या तो नकद की जाएगी अथवा उपर्युक्त कार्यालय में नियंत्रक को भुगतान योग्य धनादेश अथवा डाक आदेश या जहां उपर्युक्त कार्यालय अवस्थित है; उस स्थान के अनुसूचित बैंक से नियंत्रक को भुगतान योग्य बैंक ड्राफ्ट अथवा बैंक द्वारा की जा सकती है ।

**CORRIGENDUM**

16th March, 1992

In the Gazette of India, Part III, Section 2, dated 8th June, 1991 page 651, Column 1, under the heading complete specification accepted, read the name of the applicants as International Control Automation Finance S.A., a Luxembourg societe anonyme corporation, of Ville de Luxembourg, 16 Rue des Bains, Luxembourg instead of the Babcock & Wilcox Company, of 1010 Common Street, P.O. Box 60035, New Orleans, Louisiana 70160 United States of America for accepted complete Specification No. 168804 (910/Cal/87).

**GOVERNMENT OF INDIA****THE PATENT OFFICE**

Calcutta, the 25th April 1992

**APPLICATION FOR PATENTS FILED AT THE HEAD OFFICE 234/4, ACHARYA JAGADISH BOSE ROAD, CALCUTTA-20**

The dates shown in the crescent brackets are the dates claimed Under Section 135, of the Patents Act, 1970.

13th March, 1992

170/Cal/92 Kortec AG., Process for the Production of Liquid Metal from fine-grain metal oxide particles and reducing and smelting furnace for carrying out the process.

171/Cal/92 Atanu Parashar Sarma, Heat Exchanger for Heat Recovery in I.C. Engines.

172/Cal/92 Eaton Corporation, ARC Detector Transducer.

173/Cal/92 Eaton Corporation, Chaos Sensing Arc Detection.

174/Cal/92 Eaton Corporation, Direction Sensing Arc Detection.

175/Cal/92 De Nora Permelec S.P.A., Device for removal of gas-liquid mixtures from Electrolysis Cells.

176/Cal/92 Siemens Aktiengesellschaft, Electrical conductor having a longitudinal groove and slots at right angles to the longitudinal groove.

177/Cal/92 Combustion Power Company, Inc., Power plant with efficient emission control for obtaining high turbine inlet temperature.

178/Cal/92 John Francis Urch, Hot Air Drier. (Convention dated 19th March, 1991 No. PK-5118 and 5th November, 1991 No. PK-9299, Australia).

17th March, 1992

179/Cal/92 Asahi Kasei Kogyo Kabushiki Kaisha, A Bipolar, Filter Press Type Electrolytic Cell.

180/Cal/92 Erema Engineering Recycling Maschinen Und Anlagen Gesellschaft m.b.H., filter device for fluids to be cleaned.

181/Cal/92 Santanu Roy, Process for Preparing A Novel Polymer Intermediate and Articles made there-with.

20th March, 1992

- 182/Cal/92 Basubandhu Banerji, an Automatic Direct Holding/Parking Device for conveyor belts in conditions arising out of belt snapping and/or under speed/over speed operations of the belt.
- 183/Cal/92 Himont Incorporated Components and Catalysts for the polymerization of olefins.
- 184/Cal/92 Himont Incorporated, Components and Catalysts for the polymerization of olefins.
- 185/Cal/92 Bhaskar Dutta, Perjetual Energy Source with the help of pneumatics hydraulics.
- 186/Cal/92 Thomas J. Shaw, Nonreusable Syringe with safety indicator.

23rd March, 1992

- 187/Cal/92 Pramatha Lal Das, Improved water loss preventing Apparatus for Public Hydrant.
- 188/Cal/92 Orissa Cement Limited, Process for the Manufacture of Refractory Gunning Material.
- 189/Cal/92 Voest-Alpine Eisenbahnsysteme Gesellschaft m.b.H., Method for the production of a switch Diamond.
- 190/Cal/92 Engelhard Corporation, Hydrogenation catalyst, process for preparing and process of using said catalyst.
- 191/Cal/92 Fritz Stahlecker and Hans Stahlecker, A spinning machine.
- 192/Cal/92 Fritz Stahlecker and Hans Stahlecker, A process and an arrangement for the piecing of a sliver.
- 193/Cal/92 Fritz Stahlecker and Hans Stahlecker, A spinning machine.
- 194/Cal/92 Hitachi Ltd., and Hitachi Mito Engineering Co., Ltd., 'Cooling' device for semiconductor element.
- 195/Cal/92 Windmoller & Holscher, Method for the manufacture of two-ply drawn Tapes.
- 196/Cal/92 Sotac Corporation, Soil Treating Composition and method of applying same.

## APPLICATION FOR PATENTS FILED AT THE PATENT OFFICE BRANCH, MADRAS-2

10th February 1992

- 79/Mas/92 M. Gowthaman. Gear wheel valve.
- 80/Mas/92 Pilkington Visioncare Inc. Dispenser.
- 81/Mas/92 Krishnaswamy Naidu Sampath Kumar. A monoblock pump with rapid dismantling and built in self crane facility.

11th February 1992

- 82/Mas/92 United States of America as represented by the Secretary of Agriculture. A method for fiber loading a chemical compound.
- 83/Mas/92 The South India Textile Research Association. A mechanical swift collapsing device to improve the material bosting efficiency of a reeling machine.

12th February, 1992

- 84/Mas/92 Novo Nordisk A/S. -1, 4-galactanase and a DNA sequence.

13th February 1992

- 85/Mas/92 S. Balasubramanian, Paped chappati machine.
- 86/Mas/92 S. Balasubramanian. Safety tap valve.
- 87/Mas/92 Binny Limited. A paddy coking machine.

- 88/Mas/92 Hoogovens Groep BV. Method of making iron foil by electrodeposition.

- 89/Mas/92 Hoogovens Groep BV. Method of electrolytically coating a steel strip with a metal layer at least partly of zinc.

- 90/Mas/92 Ezio Selva S.r.l. An apparatus for supporting and orientating in a balanced fashion the mandrel on which superconducting wires of elongated shape magnetic coils are.

14th February, 1992

- 91/Mas/92 Astra Research Centre India. A process of preparing a factor that can modulate blood brain barrier from cysticercus cellulosae.

- 92/Mas/92 Dr. Jose Thaikattil. A value cap.

- 93/Mas/92 Dr. Gurubatham Ravindran, (2) Nagarjan Senthil Kumar and (3) Sounderarajan Senraj. Electronic larynx.

17th February, 1992

- 94/Mas/92 Norton Company. Process for manufacturing dispersible boehmite.

- 95/Mas/92 Amsted Industries Incorporated Method of apparatus for grinding the end of a tubular work-piece.

18th February, 1992

- 96/Mas/92 Narayanswami Nagarajan. Economic Cooking Appliances.

- 97/Mas/92 Lumigen, Inc., Chemiluminescent method and compositions.

19th February, 1992

- 98/Mas/92 Bracker AG. Apparatus for replacement of ring travellers on spinning or twisting rings.

20th January, 1992

- 99/Mas/92 J. D. Thangaraj. Marker slide—"India Finder".

- 100/Mas/92 Girivas Viswanath Shet. An invention which is a method of depleting a picture of the late chief Minister Shri M. G. Rachandran who is seen standing in front of the people of Tamil Nadu and addressing them and the invention is titled Makkal Kanner.

- 101/Mas/92 Deutsche Babcock Energieund Umwelttechnik Aktiengesellschaft. Tube mill. (October; October, 1991; Canada).

21st February 1992

- 102/Mas/92 Thirumalai Anandampillai Vijayan. An improved air cooler.

- 103/Mas/92 Thirumalai Anandampillai Vijayan. A heat shield cum cover for cars.

- 104/Mas/92 Mars Incorporated. Device for routing coins. (March 21, 1991; United Kingdom).

- 105/Mas/92 Bracco S.p.A. and Technofarmaci S.p.A. Process of concentration and purification of organic compounds.

24th February 1992

- 106/Mas/92 National Mineral Development Corporation Ltd. An improved process for the production of ferric chloride by rapid dissolution of blue dust in HCl.

- 107/Mas/92 Chemnad Puthiyapura Abdul Gafoor. An improved cooking appliance.

- 108/Mas/92 Caterpillar Inc. Track guiding apparatus.

- 109/Mas/92 Fritz Meckenstock GmbH & Co. Spray pump.

25th February, 1992

- 110/Mas/92 Robert Bosch GmbH. Cold starting device for fuel injection pumps.
- 111/Mas/92 Robert Bosch GmbH. Automatic hydraulic control device for varying the beginning of injection in single-cylinder and multi-cylinder injection pumps for diesel internal combustion engines.
- 112/Mas/92 Robert Bosch GmbH. Fuel injection for internal combustion engines.
- 113/Mas/92 Cabot Corporation. Production of carbon black.

26th February, 1992

- 114/Mas/92 University of Essex of Wivenhoe Park. Surface-coating compositions and composite materials.
- 115/Mas/92 Urea Casale S.A. System for the passivation of metal surfaces affected by operating conditions and agents promoting corrosion.

27th February, 1992

- 116/Mas/92 CCA Inc. Method of producing patterned shaped article.

28th February, 1992

- 117/Mas/92 The English Electric Company of India Limited. A fault detection device for DC traction Power Supply.
- 118/Mas/92 Monsanto Company. Fluoroalkenyl compounds and their use as pest repellants.
- 119/Mas/92 Thomas L. Cosby. Maximum ambient cycle.

2nd March, 1992

- 120/Mas/92 Shri Nataraj Ceramic and Chemical Industries Limited. An insulating brick.
- 121/Mas/92 Shri Nataraj Ceramic and Chemical Industries Limited. An insulating brick.
- 122/Mas/92 Kurimoto, Ltd. Welding method of wear resistant overlaying layer and wear resistant material for use therein.

3rd March, 1992

- 123/Mas/92 DSM N.V. Process for preparing an alkanone and/or alkanol.
- 124/Mas/92 Dragoco Gerberding & Co., GmbH. Cyclic isolongifolanone-ketals, their manufacture and their application.
- 125/Mas/92 American Telephone and Telegraph Company. Cable including halogen-free plastic jacket.

4th March, 1992

- 126/Mas/92 Shane Robert McGill. Container system (March 5, 1991; Great Britain).
- 127/Mas/92 Tecumseh Products Company. Integral Suction System.
- 128/Mas/92 Tecumseh Products Company. Scroll compressor including compliance mechanism for the orbiting scroll member.
- 129/Mas/92 Aware, Inc. Improved method and apparatus for coding motion pictures.

5th March, 1992

- 130/Mas/92 The Marmom Corporation of Canada Limited. Method and apparatus for incubating and hatching eggs.
- 131/Mas/92 Shri Hanumanth Kashinath Walvekar. Differential epicyclic infinite transmission.

132/Mas/92 Shri Hanumanth Kashinath Walvekar. Differential epicyclic infinite transmission :—A.

133/Mas/92 Carpigiani S.r.l. Stirring device for machines for the manufacture of ice-cream.

134/Mas/92 Schubert & Salzer Maschinenfabrik AG. A process and a device for winding a yarn on an open-end spinning machine.

135/Mas/92 The Marley Cooling Tower Company. Perforated arch-shaped fill bar for splash type water cooling towers.

136/Mas/92 The Marley Cooling Tower Company. Perforated trapezoidal-shaped fill bar for splash type water cooling towers.

9th March, 1992

137/Mas/92 The Fertilisers and Chemicals Travancore Limited. A process for the preparation of sodium thiosulphate pentahydrate from waste sulphur muck obtained from sulphuric acid paints.

138/Mas/92 The Fertilisers and Chemicals Travancore Limited. A process for the preparation of controlled release fertilisers.

139/Mas/92 The Fertilisers and Chkchemicals Travancore Limited. k A process for the preparation of slow release fertilisers.

140/Mas/92 Puthuparampil Varughese Devasia alias George Sebastian Puthuparampil. A device for supporting the latex collection receptacle on a latex yielding tree.

141/Mas/92 Sri. Laxshmaiah Chandrasekhara Reddy. An educational and instructional aid.

142/Mas/92 Baroody Lloyd and Dow Gordon J. Compositions of clindamycin and benzoyl peroxide for acne treatment.

143 Mas/92 Chevron Research and Technology Company. Low-sulfur reforming processes.

10th March, 1992

144 Mas/92 Kepler Weber. Improved silo for vegetable grains.

145/Mas/92 Foseco International Limited. Resin compositions for making expanded thermoplastic patterns, patterns produced therefrom and their use in metal casting.

146/Mas/92 Keeranchil Kunju Kunju Ravceendran. Fungcare box.

11th March, 1992

147/Mas/92 M. Godwhaman. Horizontal gas liquid contactor.

148/Mas/92 Nasseti Ettore S.p.A. A mould for ceramic tiles affording a re-entrant groove in the reverse face for mechanical fixing purposes, the relative tile and a relative fixing device.

12th March, 1992

149/Mas/92 Foseco International Limited. Filters for light metals (April 5, 1991; Great Britain).

150/Mas/92 Scovill Japan Kabushiki Kaisha. A fastener attaching apparatus for performing a fastener attaching operation. (Divisional to Patent Application No. 566/Mas/88).

151/Mas/92 Scovill Japan Kabushiki Kaisha. A fastener attaching apparatus. (Divisional to Patent Application No. 566/Mas/88).

13th March, 1992

152/Mas/92 Thirumalai Anandampillai Vijayan. A solar energy refrigeration device.

153/Mas/92 Thirumalai Anandampillai Vijayan. Solar energy device for industrial effluent treatment.

154/Mas/92 General Instrument Corporation. A process for forming a semiconductor device. (Divisional to Patent Application No. 534/Mas/88).

155/Mas/92 General Instrument Corporation. A process for forming a semiconductor device. (Divisional to Patent Application No. 534/Mas/88).

156/Mas/92 General Instrument Corporation. A process for forming a semiconductor device. (Divisional to Patent Application No. 534/Mas/88).

157/Mas/92 General Instrument Corporation. A process for forming a semiconductor device. (Divisional to Patent Application No. 534/Mas/88).

#### ALTERATION OF DATE UNDER SECTION 16

170649

(710/Cal/1990) Antedated to February 15, 1988.

170650

(711/Cal/1990) Antedated to February 15, 1988.

#### COMPLETE SPECIFICATION ACCEPTED

Notice is hereby given that any person interested in opposing the grant of patents on any of the Applications concerned, may, at any time within four months of the date of this issue or within such further period not exceeding one month applied for on Form 14 prescribed under the Patents Rules, 1972 before the expiry of the said period of four months, give notice to the Controller of Patents on the prescribed Form 15, of such opposition. The Written statement of opposition should be filed alongwith the said notice or within one month of its date as prescribed in Rule 36 of the Patents Rules, 1972.

The classifications given below in respect of each specification are according to Indian Classification and International Classification.

A limited number of printed copies of the specifications listed below will be available for sale from the Government of India Book Depot, 8, Kisan Sankar Roy Road, Calcutta, in due course. The price of each specification is Rs. 2/- (postage extra if sent out of India). Requisition for the supply of the printed specifications should be accompanied by the number of the specifications as shown in the following list.

Typed or photo copies of the specifications together with photo copies of the drawings, if any, can be supplied by the Patent Office, Calcutta on payment of the prescribed copying charges which may be ascertained on application to that office. Photo copying charges may be calculated by adding the number of pages in the specification and drawing sheets mentioned below against each accepted specification and multiplying the same by four to get the charges as the copying charges per page Rs. 4/-.

#### स्वीकृत सम्पूर्ण विनिर्देश

एतद्वारा यह सूचना दी जाती है कि सम्बन्ध आवेदनों में से किसी पर पेटेंट अनुदान का विरोध करने के इच्छुक कोई व्यक्ति, इसके निर्गम की तिथि से 4 महीने या अग्रिम ऐसी अवधि जो उक्त 4 महीने की अवधि की समाप्ति के पूर्व पेटेंट नियम, 1972 के तहत विहित प्रपत्र 14 पर आवेदित एक महीने की अवधि से अधिक न हो, के भीतर कभी भी नियंत्रक, एकस्थ को ऐसे विरोध की सूचना विहित प्रपत्र 15 पर दे सकते हैं। विरोध संबंधी लिखित वक्तव्य, उक्त सूचना के साथ अथवा पेटेंट नियम, 1972 के नियम 36 में यथा विहित इसकी तिथि के एक महीने के भीतर ही फाइल किए जाने चाहिए।

“प्रत्येक विनिर्देश के संदर्भ में नीचे दिए वर्गीकरण, भारतीय वर्गीकरण तथा अंतर-राष्ट्रीय वर्गीकरण के अनुरूप हैं।”

नीचे सूचीगत विनिर्देशों की सीमित संख्यक मुद्रित प्रतियां, भारत सरकार बुक डिपो, 8, किरण शंकर राय रोड, कलकत्ता में विक्रय हेतु यथा समय उपलब्ध होंगी। प्रत्येक विनिर्देश का मूल्य 2/- रु. है।

(अतिरिक्त डाक खर्च)। मुद्रित विनिर्देश की आपूर्ति हेतु मांग पत्र के साथ निम्नलिखित सूची में यथा प्रदर्शित विनिर्देशों की संख्या संलग्न रहनी चाहिए।

रूपांकन (चित्र आरेखों) की फोटो प्रतियां यदि कोई हों, के साथ विनिर्देशों की टंकित अथवा फोटो प्रतियां की आपूर्ति पेटेंट कार्यालय, कलकत्ता द्वारा विहित लिप्यान्तरण प्रभार जिस उक्त कार्यालय से पत्र व्यवहार द्वारा सुनिश्चित करने के उपरांत उसकी अदायगी पर की जा सकती है। विनिर्देश की पृष्ठ संख्या के साथ प्रत्येक स्वीकृत विनिर्देश के सामने नीचे वर्णित चित्र आरेख कागजों को जोड़कर उसे 4 से गुणा करके; (क्योंकि प्रत्येक पृष्ठ का लिप्यान्तरण प्रभार 4/- रु. है) फोटो लिप्यान्तरण प्रभार का परिकलन किया जा सकता है।

Ind. Cl. : 130 (XIV (1) ) 32 E (IX) (1) ).

170621

Int. Cl. : C 23F 11/00.

“A METHOD FOR PREPARING IRON STABILIZED AND ANTISCALING AQUEOUS SYSTEM”.

Applicant(s) : THE B. F. GOODRICH COMPANY, A NEW YORK CORPORATION, OF 500 SOUTH MAIN STREET, AKRON, OHIO 44318, UNITED STATES OF AMERICA.

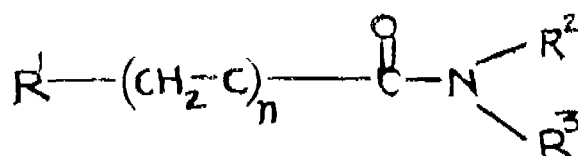
Inventor : ZAHID AMJAD & WILLIAM FRANK MASLER.

Application for the Patent No. 920/Del/86 filed on 17th October 1986.

Appropriate office for the opposition Proceedings (Rule 4 Patent Rule 1972) Patent Office Branch, New Delhi 110005.

#### (CLAIMS - 12)

A method for preparing iron stabilized and anti scaling aqueous systems containing soluble iron and alkaline earth metal salt of mixtures thereof, comprising adding to said aqueous system a copolymer of 40 to 95 weight parts of one or more monounsaturated monocarboxylic acids containing 3 to 4 carbon atoms and 5 to 60 weight parts of one or more substituted acrylamides, on the basis of a total of 100 weight parts of all monomers polymerized, said copolymer having weight average molecular weight of about 1,000 to 50,000 and the polymerized units of said substituted acrylamides are defined by formula (ii)



FORMULA II

of the accompanying drawing wherein,  $n$  is in the range of about 0.1 to 350, subject of the molecular weight limitation;  $R_1$  is selected from hydrogen and methyl and  $R_2$  and  $R_3$  and individually selected from hydrogen and substituted and unsubstituted alkyl groups each containing a total of 1 to 8 carbon atoms, provided that either  $R_2$  and/or  $R_3$  is other than hydrogen.

(Complete Specification - 25

Drawings - 1 Sheet)

Ind. Cl. : 144 A.

170622

Int. Cl.<sup>4</sup> : C03C 17/00.

A PROCESS FOR THE CONTINUOUS COATING OF COLORLESS OR MASS-COLORED GLASS AND AN APPARATUS FOR CARRYING SUCH PROCESS.

Applicant : VIDRIERIA ARGENTINA S. A., A JOINT STOCK COMPANY OF AVDA. CORRIENTES 1386, 8TH FLOOR BUENOS AIRES, ARGENTINA.

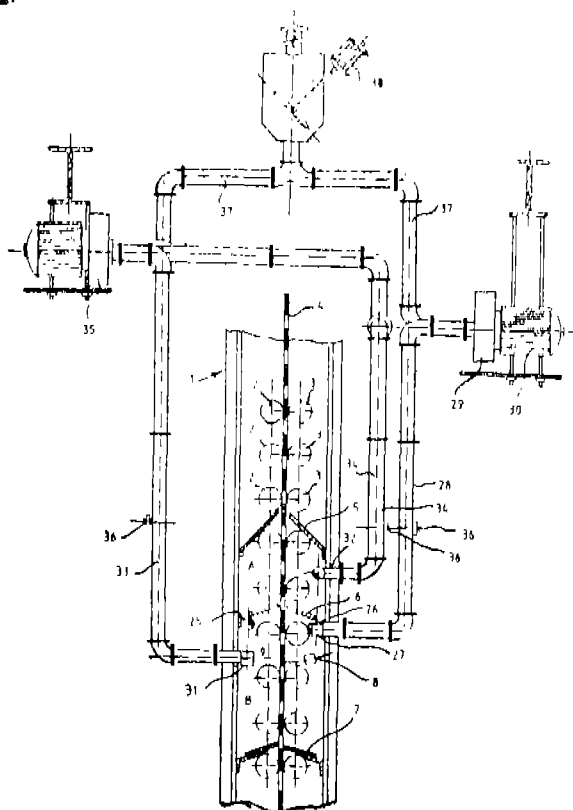
Inventors : JUAN ESTEBAN BERNABE GANDOLFO, TOMAS RODRIGUEZ EGANA & MARCELO ALFREDO FEHLSEN.

Application for Patent No. 151 DEL 87 filed on 20 FEB 87.

Appropriate office for the opposition Proceedings (Rule 4 Patent Rule 1972) Patent Office Branch, New Delhi 110005.

#### (CLAIMS 17)

Process for the continuous coating of colourless or mass-colored flat glass directly during the manufacturing process thereof in vertical towers, characterized by subjecting the flat glass sheet in a vertical chamber to temperatures comprised within 700 and 100 K; applying a coating of aqueous solution of metal salts such as iron or cobalt salt to the glass sheet by means of spraying until obtaining a layer of metal oxide of a thickness comprised within 200 and 1000 Å (Angstrom); cooling the surface of the glass opposite that in which spraying is being performed; and removing the gases burnt in said tower by forced stripping.



An apparatus for carrying into practice the process of comprising a vertical tower (1) having in its inside, horizontal rollers placed symmetrically with respect to a flat glass sheet movable between the same, said tower containing two independent chambers (A, B) formed by closures (5, 6, 7) related to said glass sheet and which form an angle with the horizontal; one of said chambers having an atomizer nose (8) in variable position and related to said glass sheet, said chamber that has the atomizer nose also containing a first gas exhaust duct in the same region of said nose said chamber that has the atomizer nose also containing a water-refrigerated tube placed at the side of the glass opposite that which is receiving spraying, a second gas exhaust duct for gases generated in such side being placed at the same zone of the chamber containing the refrigerating tube; the other chamber having a third gas exhaust duct; said exhaust ducts being connected to a gas treatment and purification means.

(Complete Specification 17 Pages.

Drawing Sheets 4.)

Ind. Cl. : 140 A2.

170623

Int. Cl.<sup>4</sup> : C 10 M 125/00, 135/02.

'A LUBRICATING COMPOSITION AND METHOD FOR MANUFACTURING THE SAME'.

Applicant : THE LUBRIZOL CORPORATION, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF OHIO, U.S.A., OF 29400 LAKELAND BOULEVARD, WICKLIFFE, OHIO 44092, UNITED STATES OF AMERICA.

Inventors : JAMES NOEL VINCI & DAVID LAWRENCE FACCHIANO.

Application for Patent No. 256 DEL 87 filed on 24 Mar 1987.

Appropriate office for the opposition Proceedings (Rule 4 Patent Rule 1972) Patent Office Branch, New Delhi 110005.

#### (CLAIMS 20)

A lubricating composition comprising a lubricant such as herein described and an additive mixture comprising :

(A) at least one overbased metal-containing organic salt wherein the metal of said metal-containing organic salt is selected from the group consisting of alkali metals, alkaline earth metals, group V-A metals, titanium, chromium and copper, with the proviso that the metal is not zinc, and

(B) at least one sulfurized organic compound such as herein described wherein the weight ratio of (A) : (B) is 50 : 1 to 1 : 1.

(Complete Specification 33 Pages).

Ind. Cl. : 185E XVIII.

170624

Int. Cl.<sup>4</sup> : A 23 N 15/10.

METHOD FOR THE TREATMENT OF GREEN COFFEE BEANS OF UNDESIREABLE FLAVOUR AND AROMA TO PROVIDE BEANS OF UPGRADED FLAVOUR.

Applicant : GENERAL FOODS CORPORATION, A CORPORATION ORGANISED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, LOCATED AT 250 NORTH STREET, WHITE PLAINS, NEW YORK, UNITED STATES OF AMERICA.

Inventors : REGHINA DAVIDESCU, RANDY FRED STRIEBEL & ROGER EDWARD HAWKS.

Application for Patent No. 294 DEL 87 filed on 8 Apr 1987.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office Branch, New Delhi 110005.

#### (CLAIMS 8)

A method for the treatment of green coffee beans having undesirable flavour and aroma to provide beans of upgraded flavour which comprises subjecting said beans having undesir-

able flavour and aroma to stem pressure treatment and moisturisation prior to roasting, characterised in that :

(a) said green coffee beans having undesirable flavour and aroma are contacted with steam at a pressure of 20 psig to 70 psig and at a temperature of 258°F to 316°F for a period of from 0.5 to 3 minutes;

(b) said steam-treatment beans are contacted with moisture for a period of from 0.5 to 2 minutes; and

(c) said moistured beans are further contacted with steam at a pressure of from 20 psig to 70 psig and at a temperature of from 258°F to 316°F for a period of 0.5 to 4 minutes, followed by said roasting.

(Complete Specification 13 Pages Drawing Sheet 1).

Ind. Cl. : 32 E 1x(1).

170625

Int. Cl.<sup>4</sup> : C 08 F 2/00.

#### PROCESS FOR THE PREPARATION OF POLYMERS.

Applicant : SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V., A NETHERLANDS COMPANY, OF CAREL VAN BYLANDTLAAN 30, 2596 HR, THE HAGUE, THE NETHERLANDS.

Inventor : MICHAEL JOHN DOYLE, JOHAN CHRISTIAAN VAN RAVENSWAAY CLAASEN, GERRIT GERARDUS ROSENBRAND, RICHARD LEWIN WIFE.

Application for Patent No. 446/DEL/87 filed on 22 May 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

#### 5 Claims

Process for the preparation of polymers comprising contacting a mixture of carbon monoxide and one or more olefinically unsaturated organic compounds, in which the molar ratio of olefinically unsaturated compound relative to carbon monoxide is 10 : 1—1 : 5, at a temperature of 20—200°C and a pressure of 1—200 bar, with a catalyst composition based upon :

- a palladium compound, in a quantity of 10<sup>-7</sup> to 10<sup>-6</sup> gram atom of palladium per mol of olefinically unsaturated compound,
- an anion of an acid with a pK<sub>a</sub> of less than 2, provided that the acid is not a hydrohalogenic acid, in a quantity of 0.5 to 200 equivalents per gram atom of palladium, and
- a bidentate ligand of the general formula R<sup>1</sup>, R<sup>2</sup>-M-R<sup>3</sup>-R<sup>4</sup> wherein M represents phosphorus, arsenic or antimony, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, represent hydrocarbyl groups which may or may not be substituted with polar groups and R represents a bivalent organic bridging group which contains at least two carbon atoms in the bridge, in a quantity of 0.1 to 5 mol per mol of palladium compound, characterised in that said process is carried out in a gaseous phase of the kind such as herein described in the absence of a liquid non-polymerizable diluent.

(Complete Specification 23 pages).

Ind. Cl. : 40 H.

170626

Int. Cl.<sup>4</sup> : B01D 53/02.

#### PROCESS FOR SEPARATING A GASEOUS MIXTURE BY ADSORPTION.

Applicant : L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE, A FRENCH BODY CORPORATE, OF 75, QUAI D'ORSAY-75321 PARIS CEDEX 07 (FRANCE).

Inventors : LEON HAY, DIDIER CROZEL & GUY SIMONET.

Application for Patent No. 471/DEL/87 filed on 02 June 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

#### 2 Claims

A process for separating a gaseous mixture by adsorption in an adsorption plant having at least three adsorbers which comprises :

- feeding a gaseous mixture such as hereinbefore described to an adsorber;
- subjecting said gaseous mixture to a cocurrent decompression;
- subjecting said decompressed gaseous mixture to a cocurrent partial emptying into a storage reservoir;
- further subjecting said gaseous mixture to a final decompression to a conventional low pressure of the cycle;
- feeding said decompressed gas from said storage reservoir to said adsorber for a countercurrent scavenging at said low pressure;
- subjecting the gas of step (e) to a partial countercurrent recompression;
- subjecting said partial recompressed gas to a final countercurrent recompression to a conventional high pressure and
- subjecting said final recompressed gas to an isobaric production step to isolate the components of said gaseous mixture, characterised in that,

the said step (a) to (h) are carried out in the same cycle in all said at least three adsorbers, the cycles being staggered from one adsorber to other by a phase shift equal to the duration of the cycle divided by the number of said adsorbers, and wherein (i) said cocurrent decompression of step (b) is carried out by withdrawing gaseous mixture undergoing decompression and feeding it directly to another adsorber undergoing recompression thereby equalising the pressure of said two adsorbers; (ii) said partial counter current recompression of said step (f) is carried out by said pressure equalisation of said step (i), and wherein the sum of the durations of the steps (c) and (d) is less than said phase shift and the sum of the durations of the steps (c), (d) and (e) is less than twice said phase shift, at least two of said adsorbers are simultaneously in said isobaric production, the total number of said adsorbers being at least four but less than 3 + x + y, x being the number of adsorbers simultaneously in isobaric production and y being the number of said pressure equalisations, with x + y being three and said partial emptying of said gas of step (c) is carried out by transferring the whole of said gas into said storage reservoir.

(Complete Spn. 31 pages.

Drawing sheets—15)

Ind. Cl. : 40 F.

170627

Int. Cl.<sup>4</sup> : B01J 8/26.

#### APPARATUS FOR DISCHARGING PARTICULATE POLYOLEFIN PRODUCT.

Applicant : BP CHEMICALS LIMITED, A BRITISH COMPANY, OF BELGRAVE HOUSE, 76 BUCKINGHAM PALACE ROAD, LONDON SW1W 0SU, ENGLAND.

Inventor : CHARLES RAUFAST.

Application for Patent No. 498/DEL/87 filed on 09 June 1987.

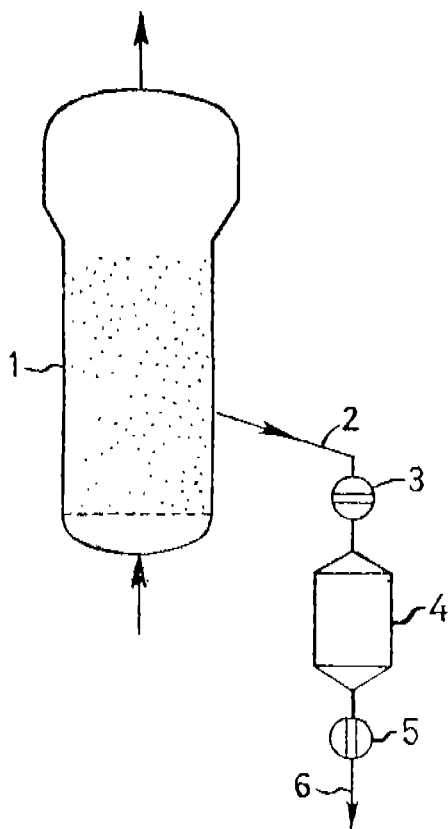
Convention date 30 Sept 1986/8623448/U.K.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 8 Claims

Apparatus for discharging particulate polyolefin product from a reactor wherein gas-fluidised bed polymerisation of one or more alpha-olefins is carried out, said apparatus comprising a vessel (4) connected to the reactor (1) by means of a pipe (2) provided with a valve (3) and connected to a receiver situated downstream by means of a pipe (6) provided with a valve (5), characterised in that :

—the two valves (3) and (5) consist of continuously rotatable plug valves associated with means for continuously rotating said valves in such a way that the two valves are not open at the same time, even partly, and the volume of the vessel (4) comprises between  $1/10$  and  $1/1000$ , and preferably between  $1/100$  and  $1/500$  of the volume of fluidised solid contained in the reactor (1).



(Complete Specification 11 pages. Drawing sheet 1)

Ind. Cl. : 97 F.

170628

Int. Cl.<sup>4</sup> : H05B 3/36.

#### A HEATING DEVICE HAVING AN ELECTRIC HEATING ELEMENT.

Applicant : KANTHAL LIMITED, A BRITISH COMPANY, OF INVERALMOND, PERTH, PH1 3EE, SCOTLAND.

Inventors : PETER HAMISH ATHEY ROEBUCK, STANLEY BARNETT MOUG & ADRIAN GEOFFREY HOWGATE.

Application for Patent No. 516/DEL 87 filed on 16 June 1987.

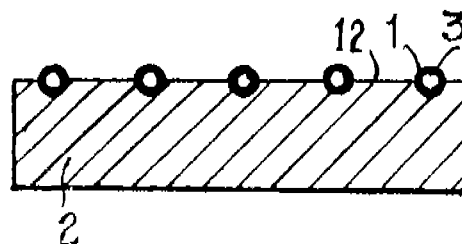
Convention date 20 June 1986/8615162, U.K.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 3 Claims

A heating device comprising an electrical heating element in the form of a coil (1) supported and retained on a base (2) of castable refractory material by ribs moulded with the base and around part of the periphery of the coil, the material of the base being moulded between adjacent turns of the coil, the core (3) of the coil being free of refractory and open to the surface of the device, part at least of the coil periphery being raised above the surrounding surface of the panel.

Fig. 5



(Complete specification 9 pages.

Drawing sheets 2)

Ind. Cl. : 5 D.

170629

Int. Cl.<sup>4</sup> : B02C 11/08.

#### Title : GRAIN DRYING MACHINE FOR PADDY, WHEAT AND OIL SEEDS.

Applicant & Inventor : RAJ KUMAR, House No. 82-D, Ward No. 3, Vishnu Nagar, Jagadhri Workshop, District Ambala-135 002 (Haryana).

Application for Patent No. 902/DEL/87 filed on 15 Oct 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 7 Claims

A Grain drying machine for drying Paddy, wheat and Oil Seeds comprising a conveyer (2) for carrying the controlled supply of moist grain particles being fed from feeding point Hopper (4) through a feed hole to the upper part of the said conveyer (2) by means of a conveyer belt fitted with conveyer buckets (3) in the body of said conveyer (2), while the conveyer belt runs over two bearing fitted roller (R 1 & R2) being provided in upper and lower portions of the said conveyer (2), means for changing the position of said upper Roller (R 1) with respect to the lower one, means for delivering the moist grains uniformly into the region between dome shaped conical, vertically mounted perforated outer cylinder (15) and perforated inner cylinder (16), means for producing hot air through a hot air chamber comprising a grate, ash-chamber, feed point, supplementary air inlet, a centrifugal blower (13) for sucking the hot air through pipe (10) from hot air-mud oven chamber and delivering the controlled hot-air to the said inner cylinder (16), means for controlling the supply of hot air through hot air pipe (14), means for discharging the controlled discharge of dried grains by positioning the discharge pipe (12) either directly towards the said Hopper (4) or towards the storage point, means for rotating the conveyer pulley (7) and blower vane shaft pulley simultaneously through a belt and pulley arrangement on an electric motor (9) shaft.



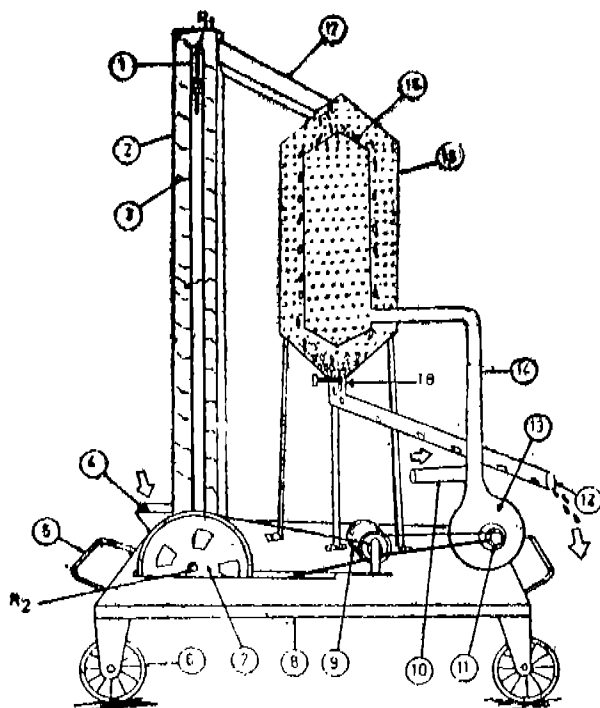


Fig. A

(Complete Specification 16 pages.)

Drawing Sheet 1)

Ind. Cl. : 32.C. 1x(1).

170630

Int. Cl.<sup>4</sup> : C07.D. 309/00, 309/02.

Title : AN IMPROVED PROCESS FOR THE ISOLATION AND PURIFICATION OF GANG LOSIDES.

Applicant COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH RAJ MARG, NEW DELHI-110 001, INDIA AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventor : KAILASH CHAND GUPTA, KRISHNA KANT & RAJESH KUMAR GAUR.

Application for Patent No. 952 DEL/88 filed on 04 Nov 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 8 Claims

An improved process for the isolation and purification of gangliosides having a silic acid content of 30% by weight of gangliosides from tissues containing the gangliosides removed from human or animal which comprises :—

1. washing the tissues with cold water to remove blood.
2. mincing the tissues.
3. dehydrating the minced tissues with acetone.
4. extracting the dehydrated tissue as a powder with mixture of chloroform methanol (2 : 2) and chloroform methanol (1 : 2) and combining the chloroform-methanol extracts.
5. extracting the chloroform methanol fractions from the said extract fraction with saline.
6. separating a methanol saline fraction.
7. loading the methanol saline fraction on to a column containing silica gel having non-polar functional group (reverse phase silica gel).

8. washing the column with one bed volume of the solvent used for packing the column.

9. eluting the gangliosides from the column with organic solvents having different polarities.

10. recovering the purified gangliosides from organic solvents in the form of powder by known methods.

(Complete Specification 14 pages).

Ind. Cl. : 9 F [GROUP XXXIII (1)]

170631

Int. Cl.<sup>4</sup> : C 22 C 38/00 & 38/60

A METHOD FOR PRODUCING A STEEL CONTAINING A LOW MELTING POINT METAL SUCH AS BISMUTH OR LEAD.

Applicant : INLAND STEEL CORPORATION, OF 30 WEST MONROE STREET, CHICAGO, ILLINOIS 60603, U.S.A.

Inventor : AKIRA TAKAHASHI.

Application No. 794 MAS/87 filed on 3rd November, 1987.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, Madras.

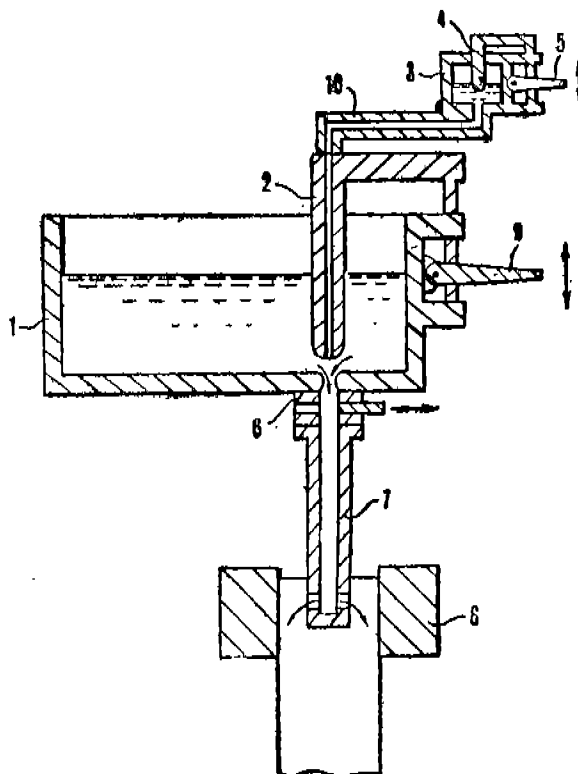
## 5 Claims

A method for producing a steel containing a low melting point metal such as bismuth or lead, said method comprising :

maintaining the low melting point metal in a molten state in a first vessel;

keeping the molten steel in a second vessel having a bottom nozzle opening and a hollowed stopper rod positioned above said bottom nozzle opening; and

flowing a desired amount of said molten low melting point metal down through said hollowed stopper rod into the molten steel contained in the second vessel.



(Com. Spec.—9 pages)

Drgs.—1 sheet)

Ind. Cl. : 169-B. 1 [GROUP—XXXIX(6)] 170632

Int. Cl. : F 41 G 3/00

## FIRE CONTROL SYSTEMS.

Applicant : BARR & STROUD LIMITED, A BRITISH COMPANY, OF CAXTON STREET ANNIESLAND, GLASGOW G13 1HZ, SCOTLAND.

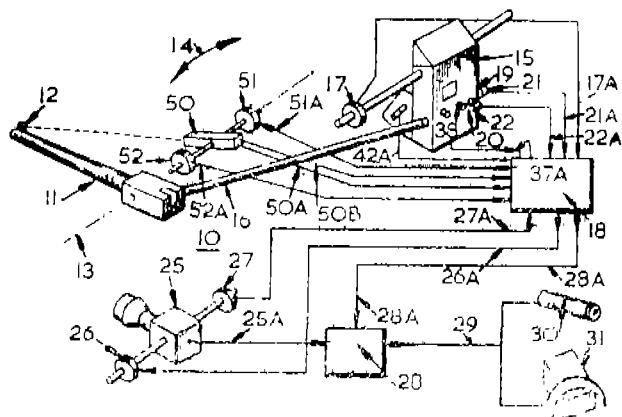
Inventors : (1) RALPH HILARY BAGNALL-WILD  
(2) GORDON ROBERTSON SMITH  
(3) CLINTON EUGENE EVANS

Application No. 829/MAS 87 filed November 17, 1987.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, Madras.

## 3 Claims

A fire control system comprising a platform on which are mounted for elevational movement a gun and first and second sighting devices, each sighting device having its sight line nominally aligned with the barrel axis of the gun and being interconnected with the gun by a tracking link which is arranged to provide for elevational adjustments to be effective in common, and wherein said first sighting device comprises a lens defining the sight line thereof, a graticule defining an alignment mark and an alignment-adjustment mechanism coupled to said lens and operable by an operator to effect relative adjustment of said alignment mark with respect to the sight line of said first sighting device, said gun comprises a muzzle reference mirror at its muzzle end and a direction-finding means is incorporated within said first sighting device, the direction finding means being arranged to enable the position of an image in the said muzzle reference mirror to be identified with respect to said alignment mark when the gun and first sighting device are at a predetermined elevation deforming a muzzle reference mirror position, and said alignment adjustment mechanism being operable to effect alignment of said mark with said image seen in said muzzle reference mirror position, said mechanism comprises signal-generating sensors arranged automatically to provide alignment-adjustment identification signals, and wherein said second sighting device comprises an electronic graticule generator coupled to receive said identification signals and operable to locate the electronically-generated graticule in said second sighting device so that the sight line thereof is automatically aligned with the sight line of the first sighting device.



(Com.—15 pages;

Drwgs.—1 sheet)

CLASS : 4 A<sub>1</sub> & 23 H  
[GROUPS LIII (1) & XL (3)]

170633

Int. Cl. : B 65 D 90/08

## FREIGHT CONTAINER FOR AIR TRANSPORT.

Applicant : SWISS ALUMINIUM LTD., A COMPANY ORGANISED UNDER THE LAWS OF SWITZERLAND, OF CHIPPIS, SWITZERLAND.

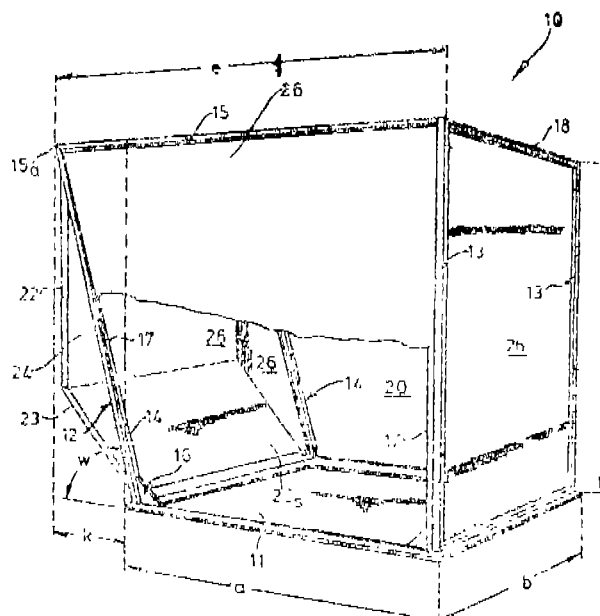
Inventors : 1. GERD BRETSCHNEIDER 2. DIETER KIESWETTER.

Application No. 849/Mas/87 filed on 24th November, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, Madras.

## 9 Claims

Freight container for air transport having a support frame (12) provided on a baseplate (11) with sections (13, 14, 15) rising from the said baseplate (11) and transverse section (18) connecting these, for a container roof and is provided with sheeting which at least partially fills in the support frame, one side of the freight container being provided with a loading opening, immediately adjoining the lateral loading opening (20) there is a gap (34) in the container roof (30) which is closable by a portion (32) of the container roof (30).



Comp. Specn. 10 pages.

Drgs. 5 sheets.

CLASS : 24-A&amp;E [GROUP-LV]

170634

Int. Cl. : B 61 H 13/02

## A HANDBRAKE ARRANGEMENT FOR A RAILWAY CAR TRUCK.

Applicant : AMERICAN STANDARD INC., A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, U.S.A., OF 40 WEST, 40TH STREET, NEW YORK, NEW YORK 10018, UNITED STATES OF AMERICA.

Inventor : ANDREW GEORGE HAYDU.

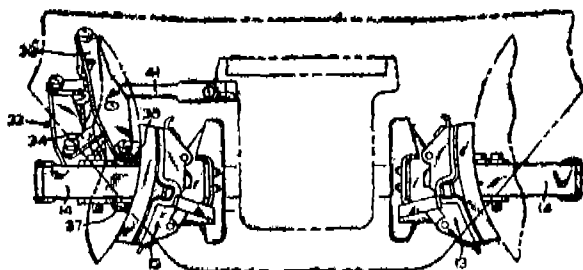
Application No. 864/Mas/87 filed December 1, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, Madras.

## 11 Claims

A handbrake arrangement for a railway car truck having a pair of wheel sets (1, 2) characterised by first and second substantially parallel, spaced apart brake beams (6, 7) interposed between said pair of wheel sets (1, 2) and having brake shoes (13) carried thereon adjacent the respective wheel treads of said wheel sets (1, 2) for engagement therewith when said brake beams (6, 7) are moved apart; first and second transfer levers (17, 18), each being pivotally connected at a point intermediate the ends thereof to a res-

pective one of said brake beams (6, 7) at the beam midpoint; brake actuator means (26) having a first member (26a) connected to said first brake beam (6) and second member (20a) connected to one arm of said first transfer lever (17) for effecting counterclockwise rotation of said first transfer lever (17) in response to relative axial expansion between the said first member (26a) and the second member (20a); first force-transmitting means (20) interposed between one arm of said second transfer lever (18) and said first member (26a) of said brake actuator means (26) second force-transmitting means (21) connected between the other arms of said first (17) and second (18) transfer levers for effecting counterclockwise rotation of said second transfer lever (18); a live handbrake lever (32) having one end fixed against movement relative to said brake beam (6) and the other end free; a dead handbrake lever (33) having one end connected to said second member (20a) of said brake actuator means (26) and the other end fixed, said live (32) and dead (33) levers being pivotally connected together at a location intermediate to the ends thereof, whereby rotation of said live lever (32) in one direction about said one end thereof in response to a handbrake application force applied at said other end of said live lever (32) provides rotation of said dead lever (33) about said other end thereof in a direction opposite said one direction to effect said relative axial expansion between the said first (26a) and second (20a) member of said brake actuator means (26), and to force apart the said first (6) and second (7) brake beams to bring said brake shoes (13) into engagement with the wheel treads of said wheel sets with a force corresponding to said applied handbrake application force.



Comp. Specn 20 pages.

Drgs. 4 sheets

CLASS : 168 C [GROUP LI (4)]

170635

Int. Cl.: G 01 V 1/147

#### AN IMPROVED DEVICE FOR GENERATING IN THE GROUND TRANSVERSE ACOUSTIC WAVES.

Applicant : INSTITUT FRANCAIS DU PETROLE, A FRENCH BODY CORPORATE, 4, AVENUE DE BOIS PREAU 92502 RUEIL MALMAISON, FRANCE.

Inventors : 1. JACQUES CHOLET 2. PIERRE CLAUDE LAYOTTE.

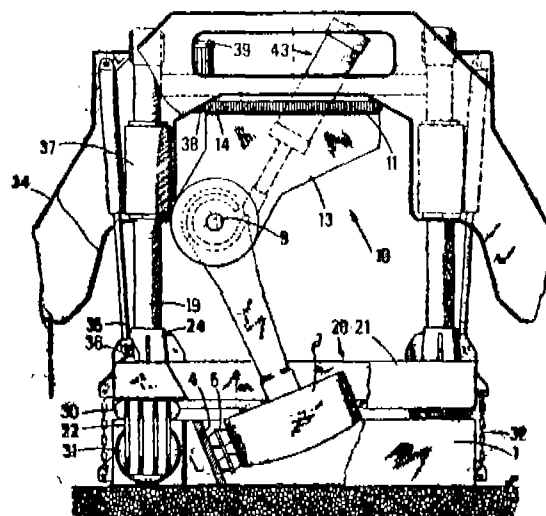
Application No. 917/Mas/87 filed on 22nd December, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, Madras.

#### 13 Claims

An improved device for generating in the ground transverse acoustic waves having a target element with a face for striking the target element on said inner wall, a mass for striking the target element on said inner wall, an arm pivoting with respect to a turret for supporting the mass and operating means for causing the arm to pivot with respect to the turret between a low position and a high position in which the mass comes into contact with the inner striking wall, said target element, said turret and said operating means being connected to a rigid cage associated with guide means fixed to the chassis of the vehicle and movable in translation with respect thereto between a first working position in which the target element is in contact

with the ground and a second raised position, said device having drive means for moving the rigid cage with respect to the chassis between the first and second positions and for pressing the target element against the ground in the working position, said inner striking wall is slanted with respect to the vertical and has a plurality of slanted faces oriented differently with respect to each other, the device also having rotational means for causing the turret to rotate with respect to the target element, and for bringing the pivoting plane of the arm perpendicularly to each of said slanted inner faces, the pivoting shaft of the arm being positioned so that the mass in the high position strikes said inner wall perpendicularly.



Comp. Specn. 17 pages.

Drgs. 5 sheets

CLASS : 204—[GROUP-XLI(10)]

170636

Int. Cl.: G 01 G 21/14.

#### WEIGHT SENSING APPARATUS.

Applicant & Inventor : GEORGE BARRY BOLLAND, OF 42 HOME FARM CRESCENT, WHITNASH, LEAMINGTON SPA, WARWICKSHIRE, UNITED KINGDOM.

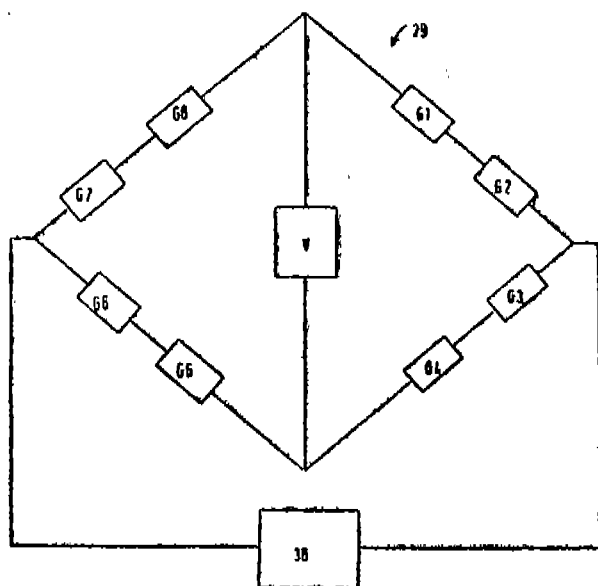
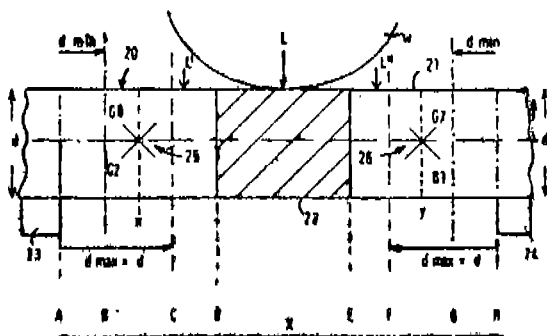
Application No. 31/Mas/88 filed January 18, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, Madras.

#### 10 Claims

A weight sensing apparatus comprising first and second support means, a load carrying beam member supported on said first and second support means, a sensing portion of the load carrying member which terminates inwardly of at least one end of the load carrying member and being disposed between said support means and therebeing at least one further portion of the load carrying member which extends away from said sensing portion beyond an adjacent one of said first and second support means towards an end of the load carrying member a load receiving region provided on said sensing portion, first and second strain gauges positioned on the sensing portion intermediate the top and bottom of the load carrying member to sense the strain in said member and provide a signal indicative of load applied to the load receiving region, said first strain gauge being positioned between the first support means and the load receiving region and the second strain gauge being positioned between the second support means and the load receiving region at a distance from the respective first support means, the second support means and the load receiving region, which is between  $0.25 d_{max}$  and  $d_{max}$  where  $d_{max}$  is the maximum thickness of the member between the first

and second support means in the direction in which the load is to be applied.



Comp. Specn. 16 pages

Drgs. 4 sheets.

CLASS : 172-C.1 [GROUP-XX]

170637

Int. Cl.<sup>4</sup> : D 01 G 15/24, 15/88

A CARD CLOTHING FOR FLATS OF A CARDING MACHINE.

Applicant : GRAF & CIE, AG OF ALTE JONASTRASSE, 8640, RAPPERSWIL, SWITZERLAND.

Inventor : RALPH ARMIN GRAF.

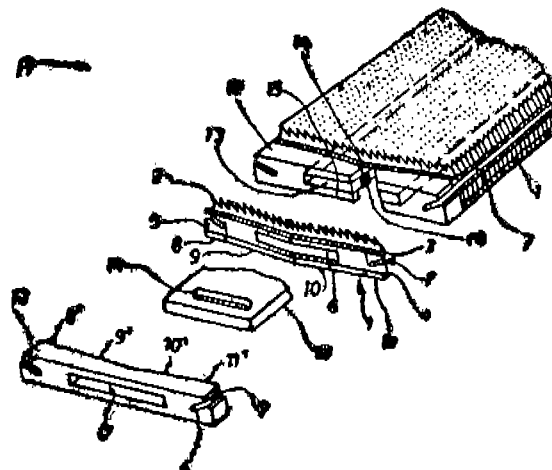
Application No. 55/Mas/88 filed January 27, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patent Rules, 1972) Patent Office Madras Branch.

7 Claims

A card clothing for flats of a carding machine, which card clothing having a plurality of mutually abutting saw tooth wire strips, in which each saw tooth wire strip (1) comprises at least two angular bends forming a plurality of wire strip sections (8, 9, 10, 11) of which at least one extends inclined relative to the direction of fibre flow, and in which the saw tooth wire strips are clampingly supported on a locking member (12) mounted onto an elongated

carrier/member (13) in a lateral mutually prestressed manner.



Comp. Specn. 11 pages.

Drgs. 1 sheet.

CLASS : 53-C [GROUP-LII(5)]

170638

Int. Cl.<sup>4</sup> : B 62 M 9/10

AN IMPROVED CYCLE RICKSHAW.

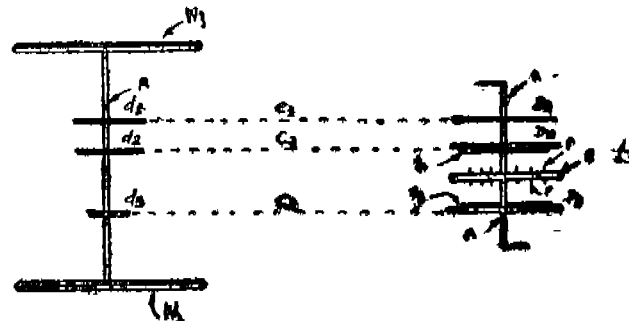
Applicant & Inventor : GOPALA SANKARA NARAYANA PANICKAR, OF DEDICATED ENGINEERING WORKS SHED NO. 27-98 NEAR MASJID, GANDHI NAGAR, POST HMT, TOWNSHIP, HYDERABAD; 500 854, INDIA, INDIAN NATIONAL.

Application No. 94/Mas/88 filed February 15, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, Madras.

7 Claims

A improved cycle rickshaw comprising a freely rotating front wheel and two free-wheel-equipped rear wheels mounted on the rear axle; a first driver sprocket fast-mounted on the pedal-axle connected by a chain to a free-wheel-equipped first driven sprocket mounted on the rear axle; one or more additional driver sprockets loose-mounted on the pedal-axle, each connected by a chain to corresponding additional free-wheel-equipped driven sprockets mounted on the rear axle; a coupling wheel having a serrated periphery concentrically fixed to each additional driver sprocket; one or more coupling discs slidably fast-mounted on the pedal-axle, adjacent the coupling wheels, each said disc having pins circularly disposed on its face adjacent a coupling wheel; and pivoted lever means controlled by a torsion-spring, said means being connected to each coupling disc for moving the said disc towards or away from each adjacent coupling wheel, to engage the pins with, or disengage the pins from the said serrations, the angular speed of each additional driven sprocket being greater than the angular speed of the first driven sprocket for a given angular speed of the pedal-axle.



Comp. Specn. 12 pages;

Drgs. 4 sheets.

CLASS : 146-D.1-[GROUP-XXXVIII(2)]

170639

thermocouple system whose output being directly proportional to the absorbed heat flux.

Int. Cl.<sup>1</sup> : G 01 J 3/44**AN APPARATUS FOR PRODUCING A RECORD OF A DIAMOND.**

Applicant : THE BRITISH PETROLEUM COMPANY PLC, OF BRITANNIC HOUSE, MOOR LANE, LONDON EC2Y 9BU, UNITED KINGDOM, A BRITISH COMPANY.

Inventor : HEATHER JANE BOWLEY (2) DONALD LESLIE GERRARD.

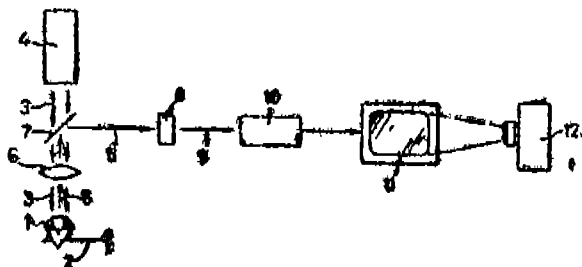
Application No. 161/Mas/88 filed 14th March, 1988.

Convention date : March 18, 1987; (No. 8706422; United Kingdom).

Appropriate Office for Opposition Proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, Madras.

**2 Claims**

An apparatus for producing a record of a diamond, comprising means for holding the diamond in a beam of monochromatic laser radiation capable of causing Raman radiation to be scattered from the diamond, means for filtering the resultant scattered Raman radiation, said filter being adapted to pass only scattered Raman radiation characteristic of diamond, means for measuring the intensity of the filtered Raman radiation, and means for recording the intensity of the filtered Raman radiation at one or more different orientations of the diamond to obtain a record of the diamond.



Comp. Specn. 10 pages.

Drgs. 3 sheets.

CLASS : 105-C-[GROUP-XLI(7)]

170640

Int. Cl.<sup>4</sup> : G 01 K 17/08**A THIN FOIL HEAT FLUX SENSOR.**

Applicant : INDIAN SPACE RESEARCH ORGANISATION, DEPARTMENT OF SPACE, F BLOCK, CAUVERY BHAVAN, DISTRICT OFFICE ROAD, BANGALORE, INDIA.

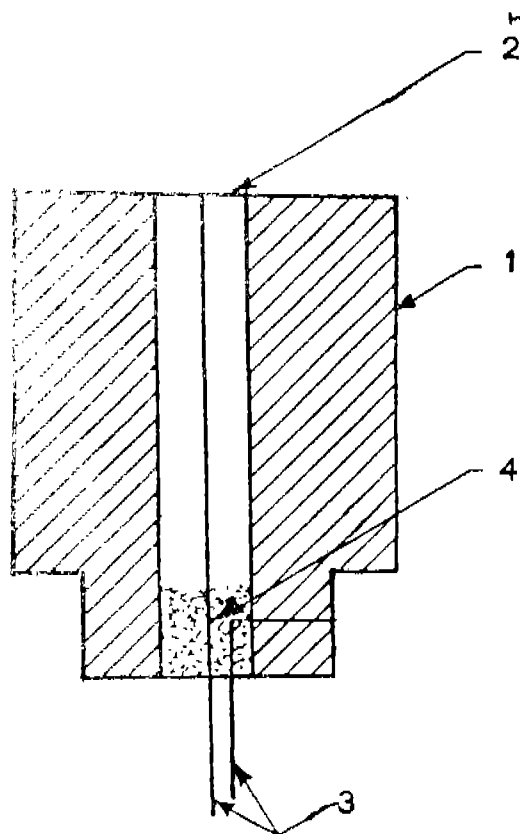
Inventors : (1) S. V. SUBBA RAO (2) N. SADASIVAN (3) B. C. PILLAI.

Application No. 316/Mas/88 filed May 12, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, Madras.

**4 Claims**

A thin foil heat flux sensor comprising a thin constant foil of predetermined thickness and diameter attached to a copper body having an axial hole to accommodate the said foil serving as the heat sink, two copper lead wires one of them being attached to the center of the foil and the other being attached to the copper body forming a differential



Comp. Specn. 8 pages

Drgs. 1 sheet.

CLASS : 35 E &amp; 39 I.

170641

Int. Cl. : CO9 C 1/40, CO9 K 3/14

**METHOD OF MAKING MICROCRYSTALLINE BOEHMITE.**

Applicants : NORTON COMPANY, OF 1 NEW BOND STREET, WORCESTER, STATE OF MASSACHUSETTS 01606, UNITED STATES OF AMERICA.

Inventors : RALPH BAUER.

Application No. 639/Cal/1988 filed on August 1st 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patent Rules, 1972) Patent Office, Calcutta.

**15 Claims**

A method of making microcrystalline boehmite comprising heating under autogenous pressure a precursor compound such as herein described, optionally being mixed with zirconia or zirconium precursor that is hydrothermally convertible to boehmite in an aqueous medium having a pH of 5 or less or of 8 or higher and in the presence of boehmite seed particles finer than 0.02 microns, said seed particles being present in an amount greater than 7.5% by weight of said precursor, calculated as Al<sub>2</sub>O<sub>3</sub>, said heating being carried out above 130°C. for a time sufficient so as substantially to convert said precursor to microcrystalline boehmite.

Compl. Specn. 21 pages.

Drgs. Nil.

CLASS : 32F 3 (a), 32 E

170642

Int. Cl. : C07C 67/00, 69/00, C08G 63/00, 79/00

NOVEL PROCESS FOR THE ENZYMATIC PREPARATION OF MONOGLYCERIDES SUITABLE FOR THE CONVERSION OF ALKYD RESINS.

Applicants : ICI INDIA LIMITED, FORMERLY KNOWN AS IEL LIMITED, OF ICI HOUSE, 34, CHOWRINGHEE ROAD, CALCUTTA-700 071, WEST BENGAL, INDIA.

Inventors : (1) GAJULAPALLI SUDESH KUMAR (2) ASHOK DYNANDEV GHOGARE.

Application No. 697/Cal/1988 filed on August 19, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 7 Claims

An improved process for the preparation of monoglycerides particularly useful for the production of alkyd resins which comprises the trans-esterification at a temperature in the range of from 30°C to 80°C of predetermined amounts of a triglyceride-containing vegetable oil such as herein described with an alcohol such as herein described in the presence of lipase as catalyst, the reaction being effected in a non-aqueous organic solvent of the kind herein described.

Compl. Specn. 13 pages.

Drgs. Nil.

CLASS : 85-G

170643

Int. Cl. : F27 D 7/06, 9/00, C21 D 9/00

VACUUM FURNACE FOR THE HEAT TREATMENT OF METALLIC WORKPIECES.

Applicants : DEGUSSA AKTIENGESellschaft, OF 6000 FRANKFURT AM MAIN, WEISSFRAUENSTRASSE, 9, FEDERAL REPUBLIC OF GERMANY.

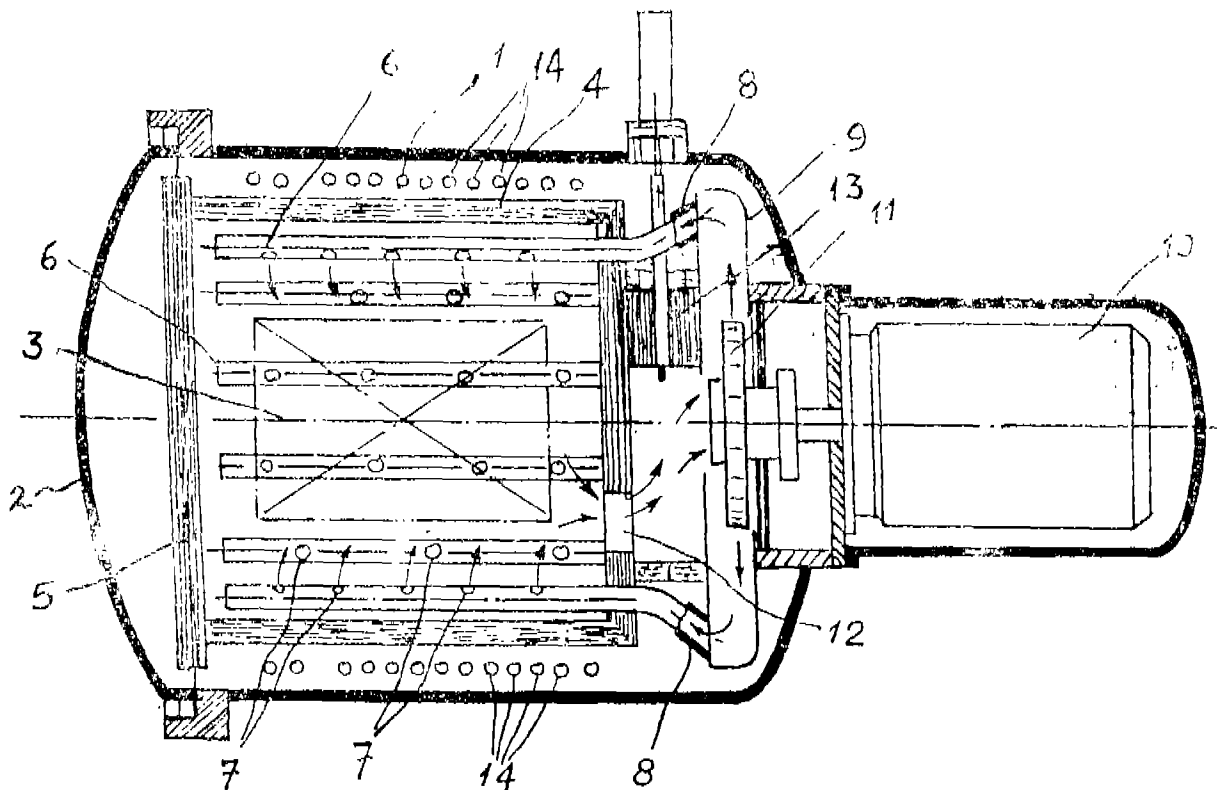
Inventors : (1) PAUL HEILMANN (2) ERWIN HEU-MULLER (3) FRITZ KALBFLEISCH (4) FRIEDRICH PREISSER AND (5) ROLF SCHUSTER.

Application No. 764/Cal/1988 filed on September 12, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 4 Claims

Vacuum furnace for the heat treatment of metallic workpieces with a cylindrical pressure housing, in which a charge space, surrounded by axially aligned heating conductors and provided with a thermal insulation, and a gas-cooling device, by which a cooling gas can be conducted via nozzles through the charge space and via a heat exchanger, are arranged, characterized in that the heating conductors (5) are designed as pipes, are provided towards the charge space with bores (7) and are connected via electrical insulation pieces (8) to a cooling-gas distribution apparatus (9).



Compl. Specn. 7 pages.

Drgs. 1 sheet.

CLASS : 32FC

170644

Int. Cl. : C07C 127/00

IMPROVED PROCESS FOR THE PREPARATION OF UREA FROM CARBON-DIOXIDE AND AMMONIA.

Applicants : PROJECTS & DEVELOPMENT INDIA LTD., P.O. SINDRI PIN 828122, DIHANBAD, INDIA, AN INDIAN COMPANY.

Inventors : (1) DR. KRISHNA MOHAN VERMA (2) SRI BISWANATH MAZUMDAR. (3) DR. DEBENDRA KUMAR SAHU.

Application No. 778/Cal/1988 filed on September 16, 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 11 Claims

Improvements in the process of preparing urea from ammonia and carbon dioxide wherein two moles of ammonia and one mole of carbon dioxide are subjected to conventional reaction to produce urea, water and un-converted ammonia and carbon dioxide, and after recovering the product urea, the

unconverted ammonia and carbon dioxide are recovered and reused, characterized in that

(i) the liquid effluent from the urea plant containing ammonia excess of 1% by weight and residual urea is subjected to a first stripping operation-cum-hydrolysis with steam followed by a second stripping with the introduction of steam and carbon dioxide in the hydrolyser, said first stripping being avoided in the case the residual amount of ammonia is less than 1% by weight;

(ii) the hydrolysis being carried out at a temperature of 170° to 240°C and at pressure of 8 to 35 kg cm<sup>2</sup> abs;

(iii) the stripping being carried out at temperatures between 110° to 135°C;

(iv) the water vapours and vapours containing ammonia, carbon dioxide released in the stripper being drawn in from the top of the stripper and condensed in a condenser and then collected as a recovery solution while;

(v) the liquid effluent stream coming out at the bottom of the stripper which contains less than 10 ppm each of urea and ammonia being cooled to 40 to 70°C and discharged as effluent.

(Compl. Specn. 23 Pages

Drigs. 2 Sheets.)

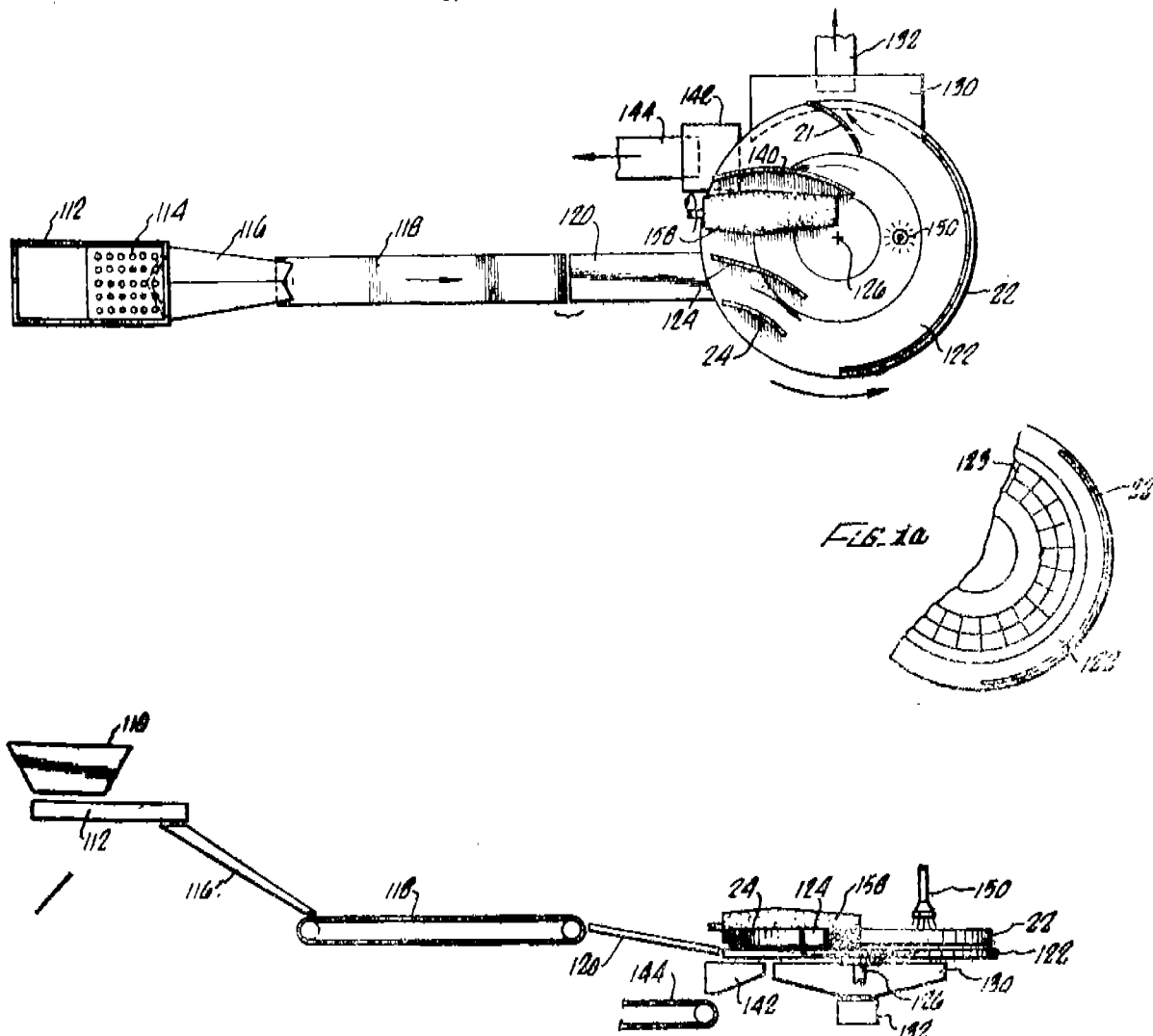
Ind. Cl. : 167 F, G, C

170645

Int. Cl. : B07 B, 1/00, 13/00

METHOD AND APPARATUS FOR THE SEPARATION OF TWO OR MORE DISCRETE PARTICULATE MATERIAL OF DIFFERENT SLIDING COEFFICIENT OF FRICTION.

Fig. 1



Applicants : CYPRUS INDUSTRIAL MINERALS COMPANY, 7000 SOUTH YOSEMITE STREET, ENGLEWOOD, COLORADO 80155, DELAWARE, U.S.A.

Inventors : (1) CARL WAYNE NICHOLS  
(2) MICHAEL JOHN LORANG  
(3) MICHAEL OTTO WOLD  
(4) JERRY WILLIAM RAYFIELD.

Application No. 821/CAL/1988 filed on October, 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 14 Claims

A method of separating on a rotatable plate member having separating surface thereon a mixture of two or more discrete, rocklike particulate materials of disparate composition on the basis of materials composition, comprising the steps of :

placing said mixture of materials on said rotary separating surface at a liner velocity substantially equal to the tangential velocity of said separation surface at the point deposition of said materials so that the relative velocity between the incoming mixture material and the disc surface is zero;

rotating said separating surface to impose centrifugal forces on said mixture materials whereby said materials tend to radially traverse said surface at different centrifugally induced velocities; depending on the sliding coefficient of friction of the respective material.

separating said discrete materials of said mixture on the basis of the velocity differences therebetween; and collecting the separated materials.

Ind. Cl. : 187 C-3

170646

Int. Cl. : H 04 M 3/22

**DIRECT ACCESS TEST UNIT FOR CENTRAL OFFICE.**

Applicants : HARRIS CORPORATION OF MELBOURNE, FLORIDA, U.S.A.

Inventors : (1) AARON CHAN  
(2) BEN PIERCE  
(3) LESLIE SHAFTO.

Application No. 833/Cal/1988 filed on October 6, 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

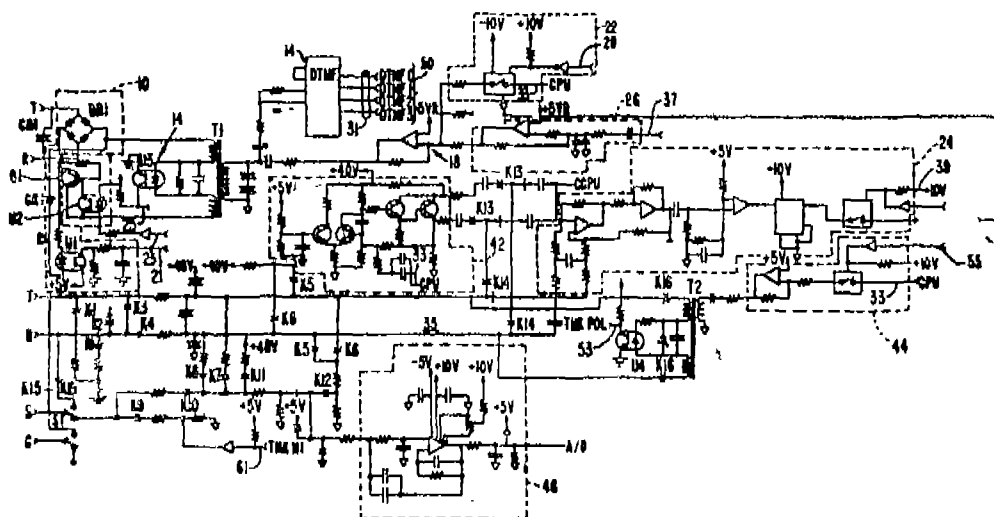
**17 Claims**

A direct access test unit installable at a telephone office for testing subscriber lines in response to commands from a remote telephone facility comprising;

a first access port coupled to an access line circuit by way of which said remote telephone facility communicates with said telephone office in the course of testing subscriber lines;

a second access port, coupled to a test trunk circuit, by way of which a subscriber line is placed in a prescribed electrical test condition by said direct access test unit in accordance with a prescribed test to be conducted on said subscriber line circuit; and

a subscriber line test controller, including a programmable control processor and an associated test function interface circuit, said control processor being programmed to perform signal analysis and generation operations necessary for responding to communications from said remote telephone facility, placing the subscriber line in said prescribed electrical test condition and conducting a prescribed electrical test of said subscriber line circuit, said subscriber line test controller being coupled in circuit with said first and second access ports, and being responsive to a command supplied from said remote telephone facility via said access line circuit to said first access port, representative of a command to conduct a test of a selected one of a plurality of subscriber line circuits that are accessible by said direct access test unit to which said remote telephone facility is connected, for placing said subscriber line circuit in one of a plurality of programmable test conditions via a signal path through said test function interface circuit to second access port, in accordance with said prescribed electrical test of said subscriber line circuit.



Compl. Specn. 37 Pages.

Drgs. 2 Sheets.

Ind. Cl. : 36 B 3

170647

Int. Cl. : F04C, 3/00

**SCROLL COMPRESSOR.**

Applicants : COPELAND CORPORATION, OF CAMPBELL ROAD, SIDNEY, OHIO 45365, UNITED STATES OF AMERICA.

Inventors : (1) JOHN PAUL ELSON  
(2) STEPHEN FRANK KRAMP.

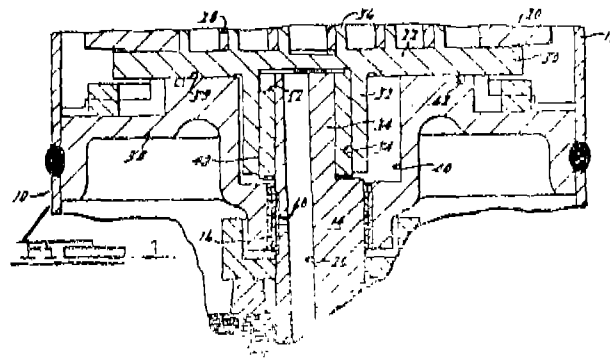
Application No. 905/Cal/1988 filed on October 31, 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

**17 Claims**

A scroll compressor comprising an orbiting scroll member having a bore defining a journal for driving said scroll member in an orbital path, a non-orbiting scroll member mated with said orbiting scroll member, a rotatably driven axially extending crankshaft having an eccentric crank pin including an outer driving surface, and a drive bushing having an axial bore receiving said crank pin, the bore in said bushing defining an inner bushing driving surface, said bushing further having an outer cylindrical bushing driving surface disposed in said orbiting scroll member journal, portions of said outer driving surface, said inner bushing driving surface, said outer cylindrical bushing driving surface and said journal cooperating with one another whereby rotation of said crankshaft is operative to effect orbital movement of said orbiting scroll member with respect to said non-orbiting scroll member

characterized in that one of said outer driving surface, said inner bushing driving surface and said outer cylindrical bushing driving surface is canted at a substantially constant angle over the axial length of its cooperating portion with respect to the axis of said crankshaft when said crankshaft is at rest, said angle being chosen such that curvature of the crankshaft is at rest, said angle being chosen such that curvature of the crankshaft caused by normal driving loads on said crank pin will cause said canted cooperating portion to mate with an opposed cooperating portion of said outer driving surface, inner bushing driving surface and outer cylindrical bushing driving surface to a greater degree on its loaded side than when said crankshaft is at rest.



Compl. Specn. 12 Pages.

Drgs. 2 Sheets.



Ind. Cl. : 127 B

170648

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

Int. Cl. : F16C, 3/10

22 Claims

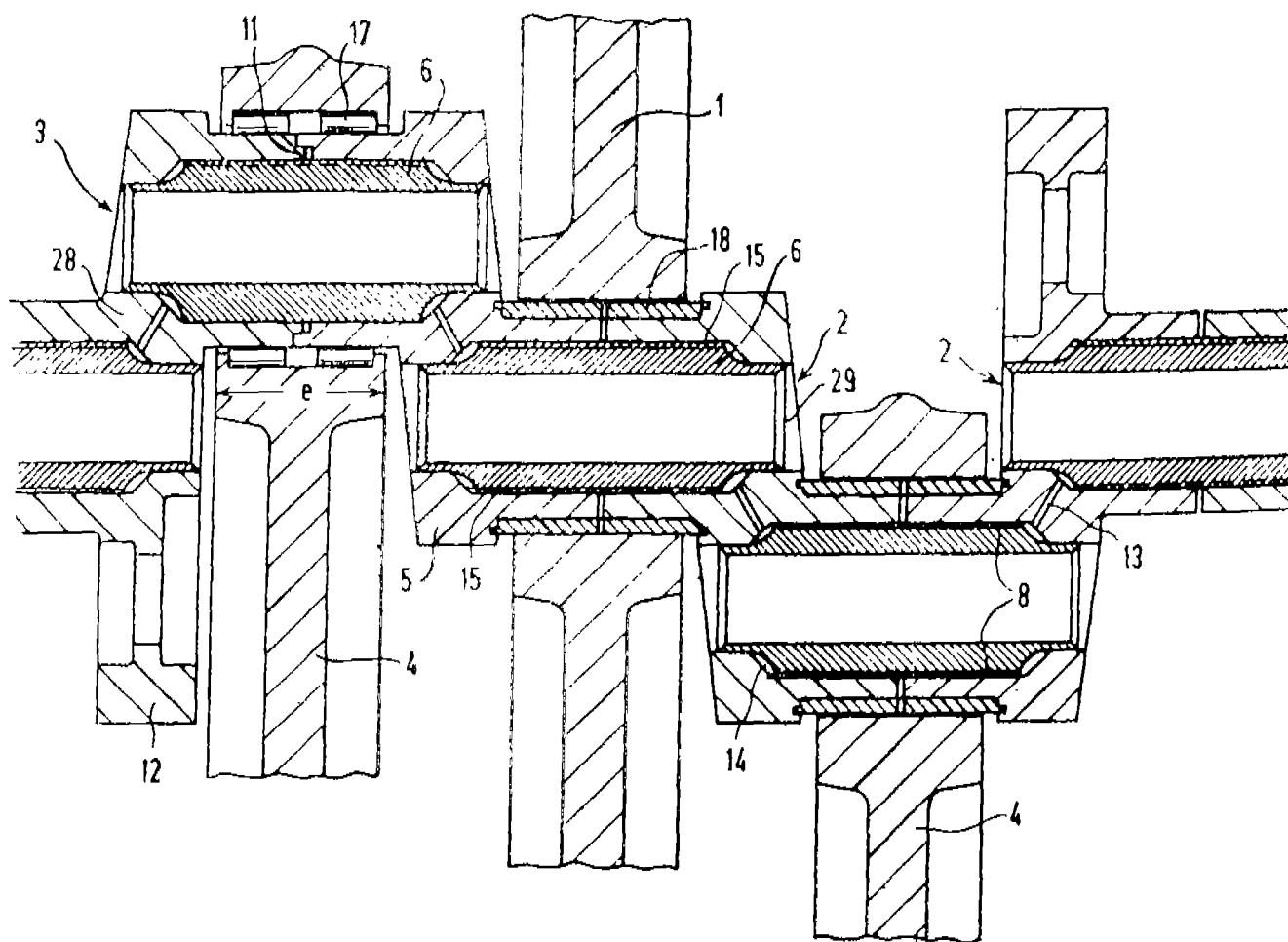
**METHOD OF ASSEMBLING CRANKSHAFTS AND CRANKSHAFTS THEREBY PRODUCED.**

Applicants : EMITEC GESELLSCHAFT FOR EMISSIONS TECHNOLOGIE MBH, OF HAUPTSTRASSE 150, D-5204 LOHMAR 1, WEST GERMANY.

Inventors : (1) WOLFGANG MAUS  
(2) HEIMUT SWARS

Application No. 921/Cal/1988 filed on November 3, 1988.

Method for assembling crankshafts for piston engines from formed pieces (5), which comprise respectively a crank web (28) and one part of a pin (2, 3), with which the pin parts (2, 3) of adjacent formed pieces (5) are pushed on to a common sleeve (6) and the sleeves (6) are expanded such that the pin parts (2, 3) remain elastically deformed radially through this, characterized in that the sleeves (6) are brought to lie against the inside of the pin parts (2, 3) through plastic radial deformation with the help of pressure applied internally, and are further more expanded, after which the pressure has been relieved, the pin parts (2, 3) after springing back resiliently, make a firm union with the sleeves (6).



(Compl. Specn. 25 Pages.

Drgs. 5 Sheets.)

Ind. Cl. : 32 A

170649

Int. Cl. : C09b 37/00, 39/00, 41/00, 43.00

**A PROCESS FOR THE PREPARATION OF WATER-SOLUBLE AZO COMPOUNDS, SUITABLE AS DYES-TUFFS.**

Applicants : HOECHST AKTIENGESSELLSCHAFT, D-6230 FRANKFURT AM MAIN 80, FEDERAL REPUBLIC OF GERMANY.

Inventors : (1) HARTMUT SPRINGER  
(2) KURT HUSSONG.

Application No. 710/Cal/1990 filed on August 17, 1990.  
3—37GI/92

(Divisional of application No. 137/Cal/88, antdated to 15-2-1988).

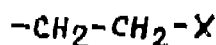
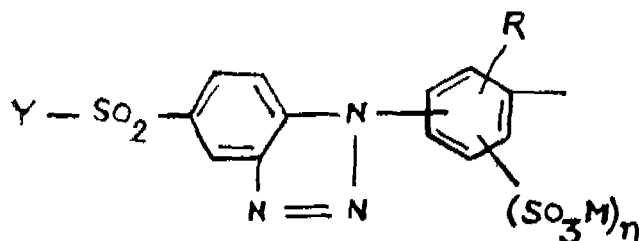
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

11 Claims

A process for the preparation of water-soluble azo compound which corresponds to the general formula (1)

D-N=N-K

in which D is a radical of the general formula (2) in which Y denotes the vinyl group or a group of the general formula (3)



in which

X is a substituent which can be eliminated by means of an alkali with formation of the vinyl group,

R is a hydrogen atom or a hydroxy group, an alkyl group having 1 to 4 carbon atoms, an alkoxy group having 1 to 4 carbon atoms, a carboxy group or a halogen atom,

n stands for the number zero or 1,

M is a hydrogen atom or a salt-forming metal atom, such as, in particular, an alkali metal atom, and the free bond in the meta or para-position to the one nitrogen atom of the benzotriazole radical;

K is a radical of a monocouplable water-soluble coupling component, which can additionally contain an azo group, or the radical of a dicouplable water-soluble coupling component, each from the series comprising the aminobenzenes, the phenols, in particular the sulfonic acids and carboxylic acids thereof, the naphthols in particular the sulfonic acids thereof, the amino-naphthols, in particular the sulfonic acids thereof, and the acylaminonaphthols, in particular the sulfonic acids thereof containing the acyl radical of an alkanecarboxylic acid or alkenecarboxylic acid each having 1 to 4 or 2 to 4 carbon atoms in the alkyl or alkenyl radical respectively, or of an aromatic carboxylic acid or an aromatic sulfonic acid or N-substituted carbamic acid, or from the series comprising the dihydroxynaphthalene-sulfonic acids, the phenylazo and naphthylazo-amino-naphtholsulfonic acids, the 5-pyrazolones and 5-aminopyrazoles, the acetoacetylarylates, the 2-hydroxy-6-pyridones and the hydroxyquinolines, which comprises reacting an amino compound of the general formula (5) in which R, M and n have the meanings mentioned above and Y, has one of the meanings of Y mentioned above, or is the  $\beta$ -hydroxyethyl group, and in which the secondary amino group is bound in the meta or para-position to the primary amino group, with twice the equimolar amount of a diazotizing agent at a temperature between  $-50^\circ\text{C}$  and  $+50^\circ\text{C}$  and at a pH of less than 2 and coupling the resultant diazonium compound formed with a coupling component of the general formula H-K where K has the above-mentioned meaning at a pH between 1.5 and 7.5 and at a temperature between  $0^\circ$  and  $30^\circ\text{C}$  a  $\beta$ -hydroxyethyl group in the azo compound formed, if Y represents the  $\beta$ -hydroxyethyl group.

into a group Y representing an ester group of a polyvalent inorganic acid or of an aliphatic or aromatic carboxylic or sulfonic acid, by means of a corresponding esterifying or acylating agent known per se and in a manner known per se.

(Compl. Specn. 57 Pages.

Drgs. 4 Sheets.)

Ind. Cl. : 32 A

170650

Int. Cl. : C09B 37/00, 39/00, 41/00, 43/00

PROCESS FOR THE PREPARATION OF A DIAZONIUM COMPOUND.

Applicants : HOECHST AKTIENGESellschaft, D-6230 FRANKFURT AM MAIN 80, FEDERAL REPUBLIC OF GERMANY.

Inventors : (1) HARTMUT SPRINGER  
(2) KURT HUSSONG.

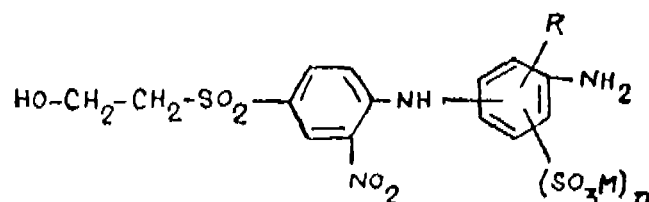
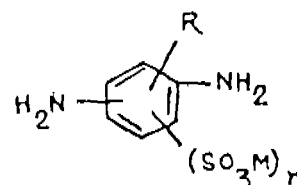
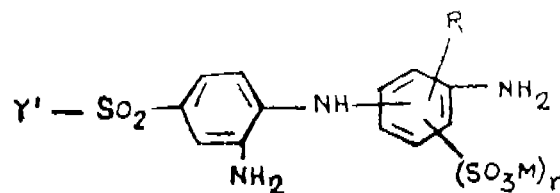
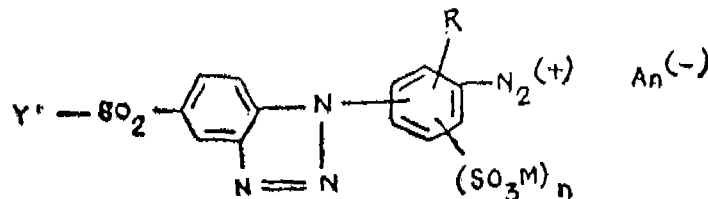
Application No. 711/Cal/1990 filed on August 17, 1990.

Divisional o application No. 137/Cal/88, antdated to 15th February, 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

### 5 Claims

A process for the preparation of a diazonium compound corresponding to the general formula (4) in which Y' is the vinyl group, the  $\beta$ -hydroxyethyl group or an ethyl group having a substituent in the  $\beta$ -position which can be eliminated by means of alkali, R is a hydrogen atom, a hydroxy group, an alkyl group having 1 to 4 carbon atoms, an alkoxy group having 1 to 4 carbon atoms, a carboxy group or a halogen atom, n is the number zero or 1, M is a hydrogen atom or a salt-forming metal atom, such as, in particular, an alkali metal atom, and An (—) represents an anion, and the diazonium group is bound in the meta or para-position to the one nitrogen atom of the benzotriazole radical, which comprises reacting 2-chloro-5-( $\beta$ -hydroxyethylsulfonyl)-nitrobenzene with a compound of the general formula (6) in which R, M and n are defined as above and the two primary amino groups are bound in the meta or para-position to one another on the benzene ring, in the presence of an acid-binding agent and at a temperature in the range of from  $50$  to  $80^\circ\text{C}$ , reducing the resultant compound of the general formula (7) where



R, M and n are defined as above, to a compound of the general formula (5) in which R, M and n are defined as above and Y' represents the  $\beta$ -hydroxyethyl group, according to a usual method known in the art for reducing aromatic nitro groups to amino groups, such as, for example, hereinbefore described, and reacting that compound of formula (5) obtained with a diazotizing agent according to a usual method of diazotation, known in the art, at a temperature between 5°C and 15°C and at a pH of less than 2, to form the diazonium compound of the general formula (4) where Y' is the  $\beta$ -hydroxyethyl group, and converting that  $\beta$ -hydroxyethyl group, if desired, into an ethyl group having a substituent in the  $\beta$ -position which is eliminated by means of an alkali to form the vinyl group.

(Compl. Specn. 54 Pages.

Drgs. 4 Sheets.)

#### REFUSAL OF PATENTS UNDER SECTION 15

Application for Patent No. 64/Bom/89 filed on 14th March, 1989, anti-dated to 300/Bom/86 of 29th October, 1986 by M/s. Hindustan Lever Limited has been refused U/S. 15 of the Patents Act, 1970 vide order dated 14th February, 1991 of the Assistant Controller of Patents & Designs.

#### OPPOSITION PROCEEDINGS U/S 25

An Opposition has been entered by The Dharamsi Morarji Chemical Co. Ltd., Bombay to grant of Patent on Patent Application No. 169430 (5/Bom/1990) made by Larsen and Toubro Limited, Bombay.

An Opposition has been entered by The Dharamsi Morarji Chemical Co. Ltd., Bombay to grant of Patent on Patent Application No. 169429 (4/BOM/1990) made by Larsen and Toubro Limited, Bombay.

An Opposition has been entered by Hindustan Lever Limited, Bombay to grant of Patent on Patent Application No. 169427 (252/Bom/1989) made by the Tata Oil Mills Company Limited, Bombay.

#### Claims under Section 20(1) of the Patents Act, 1970

164151 Claim made by Sohio Commercial Development company, a Delaware, Corporation located at Middland Building, Cleveland, Ohio 44115, United States of America and BP Photovoltaics Limited a British Corporation located at Moor Lane, London, England, under Section 20(1) of the Patents Act, 1970 to proceed the application No. 460/Mas/84 (Patent No. 464151) in their name has been allowed.

168881 The claim made by Sandoz limited, under Section 20(1) of the Patents Act, 1970, in connection with Patent Application No. 845/Mas/86 (Patent No. 168881) in their name has been allowed.

168882 The claim made by L. David Ostlie under Section 20(1) of the Patents Act, 1970, in connection with Patent Application No. 850/MAS/86 (Patent No. 168882) in his name has been allowed.

The claim made by F. Hoffmann—LA ROCHE AG., under Section 20(1) of the Patents Act, 1970 in connection with Patent application No. 425/Mas/88 (167395) has been allowed.

The Claim made by Telenet Communication Corporation in connection with Patent Application No. 662/Mas/86 (168592) has been allowed.

The Claim made by Union Switch & Signal Inc. in connection with Patent Application No. 819/Mas/86 (168597) has been allowed.

The claim made on 9th August, 1992 by BABCOCK & WILCOX TRACY POWER INC., Under Section 20(1) of the Patents Act, 1970 to proceed the application for Patent No. 168804 (910/Cal/87) in their name has been allowed.

Further, claim made on 19th October 1990 by International Control Automation Finance S.A., Under Section 20(1) of the Patents Act, 1970 to proceed the application for Patent No. 168804 (910/Cal/87) in their name has been allowed.

Claim made by Casey Medical Products Ltd., a British Company of 141, New Market Road, Cambridge CB5 8 HW, United Kingdom, under Section 20(1) of the Patents Act, 1970 to proceed the application for Patent No. 169327 (316/Mas/87) in their name has been allowed.

The claim made by METROCAST in connection with Patent Application No. 270/Mas/87 (169399) has been allowed.

Claim made by INLAND STEEL CORPORATION Under Section 20(1) of the Patents Act, 1970 to proceed application for Patent No. 170631 (794/Mas/87) in their name has been allowed.

#### PATENTS SEALED

ON 27th MARCH, 1992

165745 166260\* D 166402 168249 168250 168272 168314\*  
168445 168512 168513 168605 168626 168661 168664 168667  
168668\* 168670 168681 168685 168686 168687\* 168688  
168690 168691 198692 168694 168696\* 168697 168699  
168912 169011 169056\* 169073

Cal—14, Mas—17, Del—01, Bom—01.

\*Patent shall be deemed to be endorsed with the words "LICENCE OF RIGHT" under Section 87 of the Patents Act 1970 from the date of expiration of three years from the date of Sealing.

D—Drug Patent.

#### PATENTS NOT SEALED UNDER SECTION 43

154979 158485 158626 159489 159681 159686 159703 159707  
159736 159751 159753 159756 159761 159775 159788 159803  
159807 159824 159825 159838 160255 160261 160317 160320  
160345 160353 160363 160377 160382 160390 160391 160405  
163162 163168 163170 163180 163188 163201 163208 163209  
163967

#### AMENDMENT PROCEEDINGS UNDER SECTION 57

Notice is hereby given that NORMALAIRARRETT (HOLDINGS) LIMITED, Westland Works, Yenvil Somerset, England, have made an application under Section 57 of the Patents Act, 1970, for amendment of application and specification of their application for Patent No. 825/Mas/86 (167888) for FUEL FLOW CONTROL VALUE.

The amendments are by way of correction. The application for amendments and the proposed amendments can be inspected free of charge at the Patent Office Branch, 61, Wallajah Road, Madras-600 002, or copies of the same can be had on payment of the usual copying charges. Any person interested in opposing the application for amendment may file a Notice of Opposition on the prescribed Form-30 within 3 months from the date of the Notification at the Patent Office, Madras-2. If the Written Statement of Opposition is not filed with the Notice of Opposition, it shall be left within one month from the date of filing the said Notice.

#### RENEWAL FEES PAID

149350 150939 150959 151257 151258 151284 151750 151946  
152293 152732 152747 152910 153042 153218 153499 153979  
154019 154995 155198 155436 156447 156680 156705 156790  
157101 157212 157341 157683 157736 158107 158209 158265  
158296 158795 159268 159483 159672 159845 161008 161009  
161300 161407 162212 162409 162813 163048 163575 163595  
163735 164428 164684 165226 165454 165534 165841 167477

## CESSATION OF PATENTS

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 156325 156326 156327 156329 156332 156334 156337 156338  
 156341 156342 156344 156345 156350 156355 156356 156357  
 156358 156359 156360 156364 161367

Name Index of application for Patents in respect of Patent Office Calcutta & its branches for the month of December, 1991. (Nos. 891/Cal/91—958/Cal/91, 355/Bom/91—389/Bom/91; 855/Mas/91—956/Mas/91 and 1177/Del/91—1292/Del/91).

Name Application No.

## CALCUTTA

(891/Cal/91—958/Cal/91)

## —A—

American Cyanamid Co.—894/Cal/91.  
 Application Art Laboratories Co. Ltd.—924/Cal/91, 925/Cal/91.  
 Atlas Copco Tumelling & Mining AB.—955/Cal/91.  
 Australian Telecommunications Corporation.—941/Cal/91.

## —B—

BTR Plc.—905/Cal/91.  
 Betz International Inc.—951/Cal/91.  
 Bhartia Electric Steel Co. Ltd.—956/Cal/91.  
 Butcher, B.—931/Cal/91.

## —C—

Chatterjee, P.A.H.—908/Cal/91.  
 Chatterjee, P. (Sri)—942/Cal/91.  
 Cincinnati Milacron Inc.—909/Cal/91.  
 Conoco Inc.—926/Cal/91.

## —D—

DE Nora Permelco S.p.A.—910/Cal/91.  
 Das, R. N. (Shri)—900/Cal/91.  
 Degussa AG.—936/Cal/91.

## —E—

E. I. Du Pont De Nemours & Co.—920/Cal/91, 921/Cal/91, 940/Cal/91, 947/Cal/91.  
 Edwards, M.L.—922/Cal/91.  
 Environmental Bioscience Corporation.—916/Cal/91.  
 Erowa AG.—906/Cal/91.

## —G—

Garrison, W.S.—931/Cal/91.  
 Gaylard, E.M.J.—945/Cal/91.  
 General Electric Co.—917/Cal/91.

## —H—

Hoechst AG.—927/Cal/91, 954/Cal/91.  
 Hoechst Celanese Corporation—895/Cal/91, 918/Cal/91, 944/Cal/91.  
 Healtech S.A.—934/Cal/91.  
 Himont Incorporated.—919/Cal/91.

## —I—

Innovative Bicycle Products, Inc.—903/Cal/91.  
 Isover Saint-Gobain.—896/Cal/91.

## —K—

Krupp Koppers GMBH.—901/Cal/91.

## —L—

Lal, C.—939—Cal/91.  
 Lenzing AG.—935/Cal/91, 952/Cal/91.  
 Lubrizol Corporation, The—928/Cal/91.

## —M—

Merck Patent Gesellschaft Mit Beschränkter Haftung—933/Cal/91.  
 Mitra, P.K.—953/Cal/91.

## —P—

Pechiney Electrometallurgie.—929/Cal/91.  
 Pennwalt Corporation.—913/Cal/91, 914/Cal/91.  
 Phillips Petroleum Co.—937/Cal/91.  
 Plessis, C.J.D.—945/Cal/91.

## —R—

Ravi, A.B.—923//Cal/91.  
 Raymond Denance—898/Cal/91.  
 Redding, B.K. (Jr.)—892/Cal/91, 930/Cal/91, 931/Cal/91.  
 Reilly Industries, Inc.—911/Cal/91.  
 Richter Gedeon Vegyeszeti Gyar RT.—958/Cal/91.  
 Rosen, H.E.—904/Cal/91.  
 Roy, K. (Mrs.)—897/Cal/91.  
 Roy, S.—891/Cal/91.

## —S—

Samsung Corning Co. Ltd.—938/Cal/91.  
 Schmucker, A.E.—931/Cal/91.  
 Schock & Co. GmbH.—893/Cal/91.  
 Singh, S.P.—949/Cal/91, 950/Cal/91.  
 Sin'okogio Ltd.—915/Cal/91.  
 Somar Corporation.—946/Cal/91.  
 Stork Screens B.V.—932/Cal/91.

## —T—

Tega India Ltd.—943/Cal/91.  
 Texaco Development Corporation.—899/Cal/91.  
 Tractel Tirfor India Pvt. Ltd.—907/Cal/91.

## —U—

University of Connecticut.—912/Cal/91.

## —V—

Vöest-Alpine Industrieanlagenbau Gesellschaft M.B.H.—967/Cal/91.

## —W—

Walker-Estes Corporation.—948/Cal/91.  
 Watson, W.J.—922/Cal/91.  
 Westinghouse Electric Corporation.—902/Cal/91.

## BOMBAY

(355/Bom/91—389/Bom/91)

## —A—

Ahmedabad Textile Industry's Research Association.—389/Bom/91.  
 Arpal, B.D.—374/Bom/91.

## —B—

Bhatia, K.B.—362/Bom/91.  
 Birla Research Institute—372/Bom/91.

—C—  
 Chandrasekaran, K.—380/Bom/91.  
 —D—  
 Deodhar, P.—367/Bom/91.  
 —H—  
 Hindustan Lever Ltd.—357/Bom/91, 358/Bom/91, 360/Bom/91, 363/Bom/91, 364/Bom/91, 365/Bom/91, 366/Bom/91.  
 Hoechst India Ltd.—377/Bom/91.  
 —I—  
 Indian Oil Corporation Ltd.—371/Bom/91, 385/Bom/91, 386/Bom/91.  
 —K—  
 KSB Pumps Ltd.—384/Bom/91.  
 Khemlani, K.M.—361/Bom/91.  
 —L—  
 Luckan, P.—373/Bom/91.  
 —M—  
 Manubhai, S.J.—375/Bom/91.  
 Mazgaonkar, S.G.—355/Bom/91.  
 —N—  
 Naik, D.S.—381/Bom/91.  
 Narayana, K.L.—378/Bom/91.  
 —P—  
 Palnitkar, G.H.—382/Bom/91.  
 Peico Electronics & Electricals Ltd.—369/Bom/91.  
 Pillai, N.S.—376/Bom/91.  
 —R—  
 Ranadive, H.M.—388/Bom/91.  
 Real Value Appliances Pvt. Ltd.—383/Bom/91.  
 —S—  
 Safari Industries (India) Ltd.—370/Bom/91.  
 Shah, N.R.—356/Bom/91.  
 Shah, V.C.—359/Bom/91.  
 —T—  
 Thomas, G.—368/Bom/91.  
 Tripathi, R.—387/Bom/91.  
 —Y—  
 Yadav, S.R.R.—379/Bom/91.

## MADRAS

(855/Mas/91—956/Mas/91)

—A—  
 A. K. Technical Laboratory, Inc.—913/Mas/91.  
 Ahmed, J.—916/Mas/91.  
 Amsted Industries Incorporated.—922/Mas/91.  
 Anand, V.—932/Mas/91, 933/Mas/91.  
 Anglo American Corporation of South Africa Ltd.—947/Mas/91.  
 Aran Fire & Safety (U.K. Lt.—886/Mas/91.  
 Astra Research Centre India—891/Mas/91, 899/Mas/91, 900/Mas/91.  
 Aswanikumar, P.R.—920/Mas/91.  
 Aumund-Forlererbau GMBH.—914/Mas/91.  
 —C—  
 C. U. Lighting Ltd.—906/Mas/91.  
 Casey Medical Products Ltd.—926/Mas/91.  
 Centro Nacional de Investigaciones Cientificas.—908/Mas/91.

—E—  
 E. J. Brooks Co.—897/Mas/91.  
 —G—  
 GTM Enterpose—925/Mas/91.  
 Galipag—951/Mas/91.  
 Ganasan, S.—932/Mas/91, 933/Mas/91.  
 Gopi, M.—928/Mas/91.  
 —H—  
 Habeeb, R.G.—956/Mas/91.  
 Haldor Topsøe A/S.—921/Mas/91.  
 Harihar Polyfabrics—950/Mas/91.  
 Henkel Kommanditgesellschaft auf Aktien.—892/Mas/91.  
 Hoechst AG.—902/Mas/91, 910/Del/91.  
 Honda Giken Kogyo Kabushiki Kaisha—952/Mas/91.  
 —I—  
 Inrian Space Research Organisation.—889/Mas/91, 890/Mas/91.  
 Institute Francais Du Petrole.—941/Mas/91.  
 —K—  
 Kinergy Corporation.—945/Mas/91, 946/Mas/91.  
 Kumar, K.N.S.—923/Mas/91.  
 Kumbhat, D.—954/Mas/91.  
 —L—  
 Lucas-Tvs Ltd.—935/Mas/91.  
 —M—  
 Mannesmann AG.—942/Mas/91.  
 Mars Incorporated—887/Mas/91, 893/Mas/91, 894/Mas/91.  
 Maschinenfabrik Rieter AG.—911/Mas/91.  
 Merlin Gerin.—901/Mas/91.  
 Mitutoyo Corporation.—927/Mas/91.  
 —N—  
 Norton Co.—940/Mas/91.  
 Novo Nordisk A/S.—905/Mas/91.  
 —O—  
 Ophthalmic Research Group International—943/Mas/91.  
 —P—  
 Pall Corporation, The—955/Mas/91.  
 Philip N.S.—896/Mas/91.  
 Pilkington Visioncare Inc.—929/Mas/91.  
 Prakash, S.A.—932/Mas/91, 933/Mas/91.  
 Prakash, S.S.—917/Mas/91.  
 —R—  
 Raj, T.A.R. (Dr.)—918/Mas/91.  
 Rao, T.D.—948/Mas/91.  
 —S—  
 SMS Schloemann-Siemag AG.—931/Mas/91.  
 Saint-Gobain Vitrage International—915/Mas/91.  
 Seikagaku Kogyo Co. Ltd.—907/Mas/91.  
 Shet, G.V.—885/Mas/91, 909/Mas/91, 939/Mas/91.  
 Societ des Produits Nestle S.A.—936/Mas/91, 944/Mas/91.  
 Sollac—930/Mas/91.  
 Southern Petrochemical Industries Corporation. Ltd.—919/Mas/91.  
 South India Textile Research Association, The—898/Mas/91, 903/Mas/91.

## —T—

TI Diamond Chain Ltd.—895/Mas/91.  
Takeda Chemical Industries, Ltd.—938/Mas/91.  
Tampella Power Oy.—926/Mas/91.  
Tecumseh Products Co.—904/Mas/91.  
Thomas, D.J.—932/Mas/91, 933/Mas/91.  
Travancore Rayons Ltd.—934/Mas/91.  
Tyagarajan, K.—912/Mas/91.

## —U—

Union Oil Co. of California.—888/Mas/91.

## —V—

Vaidyanathan, S.—953/Mas/91.  
Vijayan, T.A.P.—949/Mas/91.

## —W—

Wacker-Chemie GmbH.—937/Mas/91.

## DELHI

(1177/Del/91—1292/Del/91)

## —A—

AMP Incorporated.—1181/Del/91.  
Addioton Resources, Inc.—1208/Del/91.  
Ainsworth Automation Inc.—1211/Del/91.  
Agarwal, A.—1245/Del/91.  
Agarwal, N.K. 1219/Del/91.  
Amoco Corporation.—1289/Del/91.

## —B—

BP Chemicals Ltd.—1186/Del/91, 1225/Del/91.  
Bernard Castagner.—1205/Del/91.  
Bharat Heavy Electricals Ltd.—1210/Del/91.

## —C—

Chander, J.—1209/Del/91.  
Chief Controller Research & Development—1243/Del/91.  
Chemical Research & Licensing Co.—1237/Del/91.  
Chenar Trust—1206/Del/91, 1207/Del/91.  
Chhabra, H.—1192/Del/91.  
Coflexip—1242/Del/91.  
Colgate-Palmolive Co.—1184/Del/91, 1185/Del/91, 1290/Del/91.  
Council of Scientific & Industrial Research—1198/Del/91, 1199/Del/91, 1200/Del/91, 1201/Del/91, 1202/Del/91, 1203/Del/91, 1231/Del/91, 1232/Del/91, 1233/Del/91, 1234/Del/91, 1235/Del/91, 1236/Del/91, 1248/Del/91, 1249/Del/91, 1250/Del/91, 1251/Del/91, 1252/Del/91, 1278/Del/91, 1279/Del/91, 1280/Del/91, 1281/Del/91, 1282/Del/91, 1283/Del/91, 1284/Del/91, 1285/Del/91.  
Esco Corporation.—1292/Del/91.

## —D—

Dantex Explosives (Proprietary) Ltd.—1224/Del/91.  
Denis, J.P.—1274/Del/91.  
Director Forest Research Institute.—1244/Del/91.  
Djelouah, M.—1272/Del/91.  
Djelouah, N.—1272/Del/91.  
Dorr-Oliver Incorporated.—1180/Del/91.

## —E—

Edwin Lowe Ltd.—1241/Del/91.  
Ericsson-GE Mobile Communications Holding Inc M/S.—1240/Del/91.  
Esco Corporation.—1292/Del/91.

## —G—

GPT Ltd.—1253/Del/91.  
Gaches Chimie S.A.—1212/Del/91.  
Gillette Co., The—1226/Del/91.  
Glaverbel.—1255/Del/91.

## —H—

Hermann Rerstorff Maschinenbau GmbH.—1216/Del/91.  
Howell, K.I.—1178/Del/91.

## —I—

Imperial Chemical Industries PLC.—1204/Del/91, 1286/Del/91.

## —J—

Journeys End International Inc.—1230/Del/91.

## —K—

Kalumburu Pty. Ltd.—1178/Del/91.  
Kurtz, H.L.—1191/Del/91.

## —L—

L'Air Liquide, Societe Anonyme Pour L'Etude L'exploitation Des Proceeds Georges Claude.—1241/Del/91.  
Loctite Corporation.—1197/Del/91.  
Lubrizol Corporation., The—1287/Del/91, 1291/Del/91.

## —M—

Mackay, C.A.—1191/Del/91.  
Mistry, V.B.—1277/Del/91.  
Motorola Inc.—138/Del/91, 1254/Del/91, 1269/Del/91, 1270/Del/91.

## —N—

National Power PLC.—1190/Del/91.  
Nayyar, S.—1221/Del/91, 1222/Del/91.

## —O—

Occidental Chemical Corporation.—1189/Del/91.  
Ostergaard, H.J.—1229/Del/91.

## —P—

Paul Pleiger Maachinenfabrik GmbH & Co. KG.—1239/Del/91.  
Procter & Gamble Co. The.—1193/Del/91, 1194/Del/91, 1195/Del/91, 1196/Del/91, 1215/Del/91, 1247/Del/91, 1266/Del/91, 1267/Del/91, 1275/Del/91, 1276/Del/91.

## —R—

Richardson-Vicks, Inc.—1177/Del/91, 1268/Del/91.  
Rohm & Haas Co.—1187/Del/91, 1228/Del/91.

## —S—

SAB Wabco Holdings B.V.—1213/Del/91.  
Shell Internationable Research Maatschappij B.V.—1271/Del/91.  
Sidwal Refrigeration Industries Pvt. Ltd.—1220/Del/91.  
Sorelec—1273/Del/91.  
Standard Oil Co. The.—1182/Del/91, 1183/Del/91.  
Steel Authority of India Ltd.—1179/Del/91.

## —T—

Terres Refractories Du Boulonnais.—1271/Del/91.  
Tilby, S.E.—1256/Del/91, 1257/Del/91, 1258/Del/91, 1259/Del/91, 1260/Del/91, 1261/Del/91, 1262/Del/91.  
Tonen Corporation.—1288/Del/91.  
Torotrak (Development) Ltd.—1227/Del/91.

## —U—

Union Carbide Corporation.—1218/Del/91.  
University of Southern California—1188/Del/91.

## —W—

Whirlpool Corporation.—1246/Del/91, 1263/Del/91, 1264/Del/91, 1265/Del/91.

## —Z—

ZB New Products Ltd.—1223/Del/91.

**SUBJECT-MATTER INDEX AS PER INTERNATIONAL CLASSIFICATION SYSTEM OF THE COMPLETE SPECIFICATION ACCEPTED & NOTIFIED DURING THE YEAR—1990**

[Continuity from  
Section-A follows]

[Date of Specification in 2nd column denotes; Date of complete specification/Anti-date/Post-date.  
4 Classes of Applicants Code in the 7th column are the abridged forms; i.e., I=Indian Individual;  
IC=Indian Company; F=Foreign Individual; FC=Foreign Company]

**SECTION B: PERFORMING OPERATIONS TRANSPORTING**

No Case was accepted within the following classes:—

- B 01 B : Boiling, Boiling apparatus.
- B 02 B : Preparing grain for milling, Refining granular fruit to Commercial Products by working the surface.
- B 06 : GENERATING OR TRANSMITTING MECHANICAL VIBRATIONS IN GENERAL.
- B 06 B : Methods or apparatus for generating or Transmitting mechanical vibrations of infrasonic, sonic or ultrasonic frequency for performing mechanical work in general.
- B 07 C : Postal Sorting, Sorting Individual articles or bulk material fit to be sorted piece-meal e.g. by picking.

**DISPOSAL OF SOLID WASTE**

- B 09 B : Disposal of Solid Waste.
- B 21 G : Making needles, Pins or nails.
- B 21 H : Making particular metal objects by rolling, e.g. screws, wheels, rings, barrels, balls.
- B 21 L : Making Chains.
- B 23 F : Making gears or toothed racks.
- B 23 G : Thread cutting, working of screws, bolt heads or nuts, in conjunction there with.
- B 24 D : Tools for grinding, buffing or sharpening.
- B 25 C : Hand-held nailing or stapling tools, Manually-operated portable stapling tools.
- B 25 D : Percussive tools.
- B 25 F : Combination or multi-purpose tools not otherwise provided for, Details or Components of portable power-driven tools not particularly related to the operations performed and not otherwise provided for.
- B 25 G : Handles for hand implements.
- B 25 H : Workshop equipment, e.g. for making out work, storage means for workshops.
- B 25 J : Manipulators, Chambers provided with manipulation devices.
- B 26 F : Perforating, punching, Cutting-out, Stamping-out; Severing by means other than cutting.
- B 27 B : Saws.
- B 27 C : Planing, drilling, milling, turning, or universal machines.
- B 27 D : Working veneer or plywood.
- B 27 G : Accessory machines or apparatus; Tools; Safety devices, e.g. for saw.
- B 27 H : Bending; Cooperage; Wheel-making.
- B 27 J : Mechanical working of cane, cork, or similar materials.
- B 27 K : Processes, apparatus or selection of substances for impregnating, staining, dyeing, bleaching of wood or similar materials, or treating of wood, or similar materials with permanent liquids not otherwise provided for, chemical or physical treatment of cork, cane, reed, straw or similar materials.
- B 27 L : Removing bark or vestiges or branches, splitting wood, Manufacture of veneer, wooden sticks, wood shavings, wood fibres or wood powder.
- B 27 M : Working of wood not provided for in sub classes B 27 B to B 27 L; Manufacture of specific wooden articles.
- B 27 N : Manufacture by dry processes of articles with or without organic binding agents, made from particles or fibres or consisting of wood or other lignocellulosic or like organic material.
- B 28 D : Working stone or stone like materials.

- 
- B 29 K : Indexing scheme associated with subclasses B 29 B, C, D relating to moulding materials [for indexing only.]
  - B 29 L : Indexing scheme associated with subclass B 29 C, relating to particular articles [for indexing only.]
  - B 31 : MAKING PAPER ARTICLES, WORKING PAPER.
  - B 31 B : Making boxes, cartons, envelopes or bags.
  - B 31 C : Making wound articles, e.g. wound tubes.
  - B 31 D : Making other paper articles.
  - B 31 F : Mechanical working or deformation of paper or cardboard.
  - B 41 B : Machines or accessories for making setting or distributing type, type; photographic or photoelectronic composing devices.
  - B 41 C : Process for the manufacture or reproduction of printing surfaces.
  - B 41 D : Apparatus for the mechanical reproduction of printing surfaces for stereotype printing, shaping elastic or deformable material to form printing surfaces.
  - B 41 G : Apparatus for bronze printing, line printing or for bordering or edging sheets or like articles, Auxiliary apparatus for perforating in conjunction with printing.
  - B 41 K : Stamps, stamping or numbering apparatus or devices.
  - B 41 N : Printing plates or fails, Materials for surfaces used in printing machines for printing, inking, damping, or the like preparing such surfaces for use or conserving them.
  - B 42 : BOOKBINDING, ALBUMS, FILES, SPECIAL PRINTED MATTER.
  - B 42 B : Permanently attaching together sheets, quires, or signatures, or permanently attaching objects thereto.
  - B 42 C : Book binding.
  - B 42 D : Books, Book covers, Loose leaves, Printed matter of special format or style not otherwise provided for; Devices for use therewith; Movable strip writing or reading apparatus.
  - B 42 F : Sheets temporarily attached together, filling appliances, File cards, Indexing.
  - B 43 M : Bureau accessories not otherwise provided for.
  - B 60 F : Vehicles for use both on rail and on road, Amphibious or like vehicles, convertible vehicle.
  - B 60 M : Power supply lines, or devices along rails, for electrically propelled vehicles.
  - B 60 V : Air-cushion vehicles.
  - B 61 B : Railway systems, Equipment therefore not otherwise provided for.
  - B 61 C : Locomotives; Motor railcars.
  - B 61 D : Body details or kinds of railway vehicles.
  - B 61 H : Brakes or other retarding apparatus peculiar to rail vehicles; Arrangements or dispositions of brakes or other retarding apparatus in rail vehicles.
  - B 61 J : Shifting or shunting of rail vehicles.
  - B 61 L : Guiding railway traffic, Ensuring the safety of railway traffic.
  - B 62 C : Vehicles drawn by animals.
  - B 63 C : Launching, hauling-out or dry docking of vessels, Life-saving in water, Equipment for dwelling or working under water, Means for salvaging or searching for under water objects.
  - B 63 G : Offensive or defensive arrangements on vessels, Mine-laying; Mine-sweeping, Submarines, Air-craft carriers.
  - B 63 H : Marine propulsion or steering.
  - B 64 B : Lighter-than-air.
  - B 64 G : Cosmonautics, Vehicles or equipment therefor.
  - B 65 F : Gathering or removal of domestic or like-refuse.
  - B 67 C : Cleaning, filling with liquids or semi-liquids or emptying of bottles, jars, cans, casks, barrels, or similar containers not otherwise provided for, Funnels.
  - B 68 B : Harness, Devices used in connection therewith, whips or the like.
  - B 68 C : Saddles, stirrups.
  - B 68 F : Making articles from leather, canvas or the like.



## SECTION—B

B 01 : PHYSICAL OR CHEMICAL PROCESSES OR APPARATUS IN GENERAL.

B 01D : SEPARATION.

Specn. No.	Date of Specn.	Applicant for Patent	Title of the Invention.	Date of Notification.	Int. Class.	Indian Classification.	Applicant Code.
1	2	3	4	5	6	7	8
165844	16-10-86	INFILCO DEGREMONT INC.	Installation for cleansing a filter bed.	27-01-90	25/00	80-E	FC.
165862	17-01-86	TLV CO. LTD.	Gas-water separator.	03-02-90	53/24	40-E	FC.
165921	30-10-87	MONTEDIPE S.P.A.	Thin-layer evaporator for high-viscosity fluids.	10-02-90	1/00	56-D	FC.
165925	27-06-84	UNION CARBIDE CORPORATION.	A pressure swing adsorption system.	10-02-90	53/02	40-H	FC.
165986	08-08-86	PUROLATOR PRODUCTS INC.	A fluid filter.	17-02-90	35/00	80-E	FC.
165995	25-01-86	UNION CARBIDE CORPORATION.	An adiabatic pressure swing adsorption process.	24-02-90	15/00	40-H	FC.
166095	12-06-86	CONTEMPO PRODUCTS.	A two part device for shutting-off and severing a tube particularly a tube used in dialysis or intravenous injection.	10-03-90	13/00	128 FG	FC.
166180	18-10-85	SURENDRA KUMAR	Process for the recovery of H <sub>2</sub> S from gas mixture.	24-03-90	53/00	39-A-E	I.
166241	11-10-85	IMPERIAL CHEMICAL INDUSTRIES PLC.	A process for the recovery of carbon dioxide from a gaseous mixture.	31-03-90	53/02	40-H	FC.
166242	11-10-85	IMPERIAL CHEMICAL INDUSTRIES PLC.	A process for the production of ammonia synthesis gas.	31-03-90	53/02	40-H	FC.
166401	10-09-86	AUSIMONT S.P.A.	Filtration device for oils used as the operating fluid in vacuum pumps.	28-04-90	35/02	80-A	FC.
166413	21-02-86	UNION CARBIDE CORPORATION	Pressure swing adsorption process for the separation of hydrogen, methane, carbon dioxide and the like and a system for carrying out the process.	05-05-90	53/02	40-E	FC.
166493	03-12-85	SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V.	Process for producing a substantially H <sub>2</sub> S-free gas from a sour gaseous stream such as naturally occurring gases, synthesis gases, process gases and fuel gases.	19-05-90	53/14	40-H	FC.
166520	01-10-84	FABCON INCORPORATED.	Process for flocculating and clarifying a solid-liquid slurry.	19-05-90	43/00	40-F	FC.
166530	29-05-86	EBARA CORPORATION.	Hollow finer filter device.	26-05-90	33/06	80-H	FC.
166595	05-02-86	AE PLC.	Disposable cartridges for centrifugal separators.	09-06-90	27/00	37-C	FC.
166613	14-08-86	TEXACO DEVELOPMENT CORPORATION	A process for removing a gaseous sulfur component from a mixture of gases containing sulfur oxides.	16-06-90	53/36	40A1 and 40-H	FC.
166625	30-04-87	NESTLE OY.	Procedure for concentrating aqueous alcohol solutions by prevaporation.	23-06-90	13/00	40-E and 56-G	FC.

1	2	3	4	5	6	7	8
166627	11-05-87	NORTON COMPANY.	A process for obtaining a stream of non-acid gas substantially free from acid gas with which it is mixed.	23-06-90	47/00, 88-F 53/14	FC.	
166753	21-11-85	SYRINX RESEARCH PTY LTD.	A method of osmotic distillation and apparatus for carrying out the same.	14-07-90	13/00 56-D	FC.	
166760	11-06-86	1. LUCIEN CHASTAN-BAGNIS. 2. ALAIN CHASTAN-BAGNIS.	Decontamination apparatus for cleaning bodies of water.	14-07-90	43/00 40F	F.	
166807	12-10-87	SATISH DAMODAR TANKSALE.	A fly ash arrester for boilers.	21-07-90	45/06, 176AI; I. 53/24 37A.		
166866	12-03-86	EPOC LIMITED.	A flexible filter support for microfiltration, ultrafiltration or reverse osmosis, of fluids.	28-07-90	29/14 80-B- Group-VI.	FC.	
166972	05-05-87	ION EXCHANGE (INDIA) LIMITED.	An improved continuous closed water filter.	11-08-90	29/08 80A & D- GROUP-VI	IC.	
167044	19-02-86	HIRAYAMA SETSUBI KABUSHIKI KAISHA.	A cleaning unit for making a clean room.	25-08-90	45/00, 6-A <sub>2</sub> - 46/00 GROUP- XLVII(1)	FC.	
167187	26-03-86	PERETZ ROSENBERG.	Direct-flushing fluid filter.	15-09-90	25/08 80-K- GROUP-VI.	F.	
167300	31-10-88	KUMAR PROCESS CONSULTANTS & CHEMICALS PVT. LTD.	An improved filtering device.	06-10-90	23/04 80-I-VI	IC.	
167323	06-06-86	F.L. SMIDT & CO. A/S	Separator for sorting particulate material.	06-10-90	45/14 6B <sub>3</sub> -& 167C GROUP- XLVII(1) & XXXIV(4)	FC.	
167377	14-08-87	METALLGESELLSCHAFT AKTIENGESELLSCHAFT.	Process for recovery of valuable gases from a laden absorbent solution.	20-10-90	3/00 40-E; 88-F	FC.	
167389	26-06-86	SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V.	Apparatus suitable for solids-fluid separation.	20-10-90	45/00 167-F XXXIV —(4)	FC.	
167443	15-05-86	THE DOW CHEMICAL COMPANY.	A composite membrane structure and the method of preparing the same.	27-10-90	13/04 80-K- GROUP VI	FC.	
167520	28-04-87	COSUDARSTVENNY PROEKTNO-KONSTRUKTORSKY I EXPERIMENTALNY INSTITUT POBOGATIELHONU OBOURODOVANIJU GIPROMASHOBOGASCHENIE AND NAUCHNO-ISSLEDOVATELSKY I PROEKTNY INSTITUT OBOGASCHENIA I MEKANIČESKOI OBRABOTKI POLEZNYKH ISKOPAEMYKH (URALMEKHANOBR).	Electrical drum-type separator.	10-11-90	35/06 167 C	FC.	

1	2	3	4	5	6	7	8
167561	06-07-87	METALLGESELLSCHAFT AKTIENGESSELLSCHAFT.	Apparatus for the purification of gases.	17-11-90	46/00	40-H	FC.
167585	14-07-86	L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE.	Process for cryogenic air separation into its component gases and an air distillation system for carrying out the process.	17-11-90	51/00	6-B-I	FC.
167696	14-08-87	METALLGESELLSCHAFT AKTIENGESSELLSCHAFT.	Process of desulfurising a first and a second gas each gas containing CO <sub>2</sub> and sulfur compounds.	08-12-90	47/00, 53/00,	40-H;88-F	FC.
167753	25-07-86	EXXON RESEARCH AND ENGINEERING COMPANY AND TECHNICAL DEVELOPMENT AND RESEARCH WORK.	Absorbent composition.	15-12-90	53/14	40H IV(1)	FC.
167754	11-08-86	PETERSON FILTERS CORPORATION.	Apparatus for gravity sedimentation separation of solids from liquids.	15-12-90	21/00	80H(VI)	FC.
167784	27-09-83	ENGELHARD CORPORATION.	Process for decomposing ammonia in a gas stream.	22-12-90	53/00	40-H	FC.
167805	03-08-86	LINDE AKTIENGESSELLSCHAFT.	A pressure swing adsorption process.	22-12-90	53/02	40-H [Group-IV (1)]	FC.

## B 01 F: Mixing, e.g. dissolving, emulsifying, dispersing.

165847	27-06-86	HALVOR FORBERG.	A machine for mixing particulate material.	27-01-90	7/00	132-A2	F.
165960	03-01-86	KENNECOTT CORPORATION.	An agitator.	17-02-90	7/02, 9/10	132-C	FC.
166266	03-12-85	GORAN PERSSON MASKIN AB.	A device for beating and mixing of liquids and batters.	07-04-90	7/30	49-D&E	FC.
166607	17-12-85	ATOCHEM.	Process for the preparation of anthra - quinone dispersion.	09-06-90	3/00	132-D-XXXIV(3).	FC.
166773	16-06-86	GENERAL SIGNAL CORPORATION.	Apparatus for mixing a liquid or liquid suspension medium contained in a vessel.	14-07-90	7/00	132 C/D	FC.
167350	06-11-85	POSECO INTERNATIONAL LIMITED.	Apparatus for treating molten metal with a gas.	13-10-90	3/04, 7/16	130-F-Group 1 XXXIII(7)	FC.
167429	27-05-88	HINDUSTAN LEVER LIMITED.	A non-conveying mixer for mixing material.	27-10-90	9/18	32B <sub>1</sub> +D XXXIV(3)-170D+B XLIII(4)	IC.
167467	01-07-88	1. NAMJOSHI ANAND NARAYAN. 2. PATEL CHIMANLAL GOVINDBHAI. 3. PATEL MANUBHAI BHAILALBHAI. 4. KARNADIKAR SHANKAR GANESH.	A high speed mixing plant.	03-11-90	7/00, 5/16	132D,B <sub>2</sub> XXXIV-(3).	1.

1	2	3	4	5	6	7	8
167468	01-07-88	1. NAMJOSHI ANANT NARAYAN.  2. PATEL CHIMAN- LAL GOVIND- BHAI.  3. PATEL MANUBHAI BHAILALBHAI.  4. KARANDIKAR SHANKAR GANESH	An improved method and an apparatus for blending continuously two or more phases of materials in different physical forms.	03-11-90	13/00	132D C- XXIV- (3) I.	
167613	29-01-87	ARMATUREN- FABRIK WALLISELLEN AG.	Actuating device for a single lever mixing fixture.	24-11-90	9/08	132/C	FC.
B 01 J : Chemical or physical processes, e.g. catalysis, colloid chemistry: Their relevant apparatus.							
165776	20-08-85	SHELL INTER- NATIONALE RE- SEARCH MAATSCHAPPIJ B.V.	Process for the preparation of hydro- carbons by catalytic reaction of carbon monoxide and hydrogen.	06-01-90	11/24	32B	FC.
165793	25-04-86	ENGELHARD CORPORATION.	Process for producing zeolitic microsphere fluid cracking catalysts.	13-01-90	8/00	40-B	FC.
165875	23-08-85	UNION CARBIDE CORPORATION.	An improvement in fluidized bed polyme- rization reactor.	03-02-90	8/24, 8/34	40-F	FC.
165885	23-02-87	WASHINGTON UNIVERSITY TECHNOLOGY ASSOCIATES, INC.	A method for granulation of a powdery material and apparatus for carrying out said process.	03-02-90	2/00, 3/12,	40-F	FC.
165949	24-02-84	ENGELHARD CORPORATION.	A method for making a fluid catalytic cracking catalyst for cracking petroleum feedstocks.	17-02-90	21/16, 29/08.	40-B	FC.
165961	12-09-85	HOECHST AKTIENGESELLS- CHAFT.	Apparatus for electrically separating electrolyte common mains from a bipolar electro-chemical cell pile and individual cells from each other.	17-02-90	19/08.	72-A	FC.
166013	25-07-85	ETABLISSEMENT GERSAN.	Feeder for feeding discrete objects.	24-02-90	8/10	40-F	FC.
166044	14-08-87	INDIAN PETRO- CHEMICALS COR- PORATION LIMITED.	Process for the preparation of improved active copper catalysts having enhanced surface area.	03-03-90	23/72	40-B-IV (1)	IC.
166062	06-03-87	JAMES FRANKLIN ANGELO II.	Combustion device for the selective in- cineration or carbonization of waste materials.	10-03-90	19/00	85-L	F.
166102	14-03-86	UOP INC.	A process for regenerating coke-conta- minated catalyst.	17-03-90	38/12	40-B	FC.
166141	30-07-85	IMPERIAL CHEMI- CAL INDUSTRIES PLC.	A process for the production of an oxidic catalyst precursor composition.	17-03-90	21/04	40-B	FC.
166142	30-07-85	IMPERIAL CHEMI- CAL INDUSTRIES PLC.	A process for the production of an oxidic catalyst precursor composition.	17-03-90	21/04, 23/74	40-B	FC.
166143	30-07-85	IMPERIAL CHEMI- CAL INDUSTRIES PLC.	Method of making a pelleted precursor.	17-03-90	21/04, 23/74	40-B	FC.
166146	20-03-86	IMPERIAL CHEMI- CAL INDUSTRIES PLC.	A process for the production of an oxidic promoted, ammonia synthesis catalyst precursor composition.	17-03-90	21/04, 23/74.	40-B-IV (1)	FC.

1	2	3	4	5	6	7	8
166149	25-03-86	COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH.	Process for the preparation of crystalline aluminophosphate catalysts.	17-03-90	27/18	40-B	IC.
166173	10-09-85	KABUSHIKI KAISHA KOBE SEIKO SHO.	Method and apparatus for fluidized bed reduction of iron ore.	24-03-90	8/24, 8/26.	40-A <sub>2</sub>	FC.
166188	23-03-87	COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH.	Microprocessor based automated control unit for monitoring multi electrochemical protection system.	24-03-90	19/09	70-C <sub>5</sub>	IC.
166203	22-07-87	SANTRADE LIMITED.	A granulating device with a perforated hollow cylinder.	31-03-90	2/12	93-XXXXIII-(4)	FC.
166208	05-08-87	HINDUSTAN LEVER LIMITED.	Process for preparing a silica/magnesia catalyst cogel base.	31-03-90	21/14, 21/16.	40-B-IV(1)	IC.
166342	16-10-85	ALUSSUISSE ITALIA S.P.A.	PROCESS for the preparation of an improved catalyst complex for partial oxidation of hydrocarbons to maleic anhydride.	14-04-90	27/14, 27/198	40B	FC.
166568	03-03-86	SOUTHERN PETRO-CHEMICAL INDUSTRIES CORPORATION LTD.	A Process for the recovery of copper in elemental form and zinc as zinc sulphate from low temperature carbon monoxide spent catalyst.	09-06-90	23/72, 23/06	130-I, 39-P	IC.
166623	03-02-87	1. HUBERT EIRICH. 2. PAUL EIRICH. 3. WALTER EIRICH.	A method of and an apparatus for producing treated power station residues, in particular from filter ash, for conversion into easily disposable form.	23-06-90	1/00	40-F	F.
166701	03-12-86	PROJECTS & DEVELOPMENT INDIA LIMITED.	A process for the manufacture of ketonisation catalyst for the conversion of ethyl alcohol to acetone.	07-07-90	23/76	40-B	IC.
166774	18-06-86	EXXON CHEMICAL PATENTS INC AND TECHNICAL DEVELOPMENT AND RESEARCH WORK.	A method for preparing an olefin polymerization supported catalyst.	14-07-90	21/06	40-B-IV-(1)	FC.
166775	24-06-86	SOCIETE CHIMIQUE DES CHAR-BONNAGES S.A.	Improved apparatus for effecting accurately in line and continuously the weight feeding of granulated or pulverulent products.	14-07-90	2/00, 12/26.	132-B <sub>1</sub>	FC.
166791	18-06-84	DU PONT CANADA INC.	An improved process for preparing a coordination catalyst for use in the preparation of high molecular weight polymers of $\alpha$ -olefins.	21-07-90	31/00, 37/00.	40-B	FC.
166822	18-11-85	BP CHEMICALS LIMITED.	Method of manufacturing a supported catalyst for the copolymerisation of ethylene in gas phase.	21-07-90	21/90	39E III.	FC.
166852	25-02-86	UOP INC.	Method and apparatus for producing alumina based catalyst particles containing a reduced platinum metal.	28-07-90	21/04	40-B	FC.

1	2	3	4	5	6	7	8
166882	23-02-87	WASHINGTON UNIVERSITY TECHNOLOGY ASSOCIATES INC.	A method for granulation of a powdery material.	04-08-90	2/00, 2/28.	93-C, -A,D,E.	FC.
166906	07-09-88	HINDUSTAN ORGANIC CHEMICALS LIMITED.	A pretreatment process for easy and safe removal of deactivated copper chromite catalyst from multitubular reactors.	04-08-90	38/00, 38/12, 38/14, 23/16, 23/72.	40BIV(1), 39N(III)	IC.
166910	27-10-87	ION EXCHANGE (INDIA) LTD.	A process for preparing improved cation exchange resin.	04-08-90	37/30	32-E	IC.
166937	18-02-86	AKZO N.V.	A fluidizable cracking catalyst composition	11-08-90	21/06, 23/02, 29/06	40-B	FC.
167119	23-10-86	COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH.	Process for the preparation of crystalline phospho-alumino-silicate catalysts.	01-09-90	20/16	40-B	IC.
167178	24-06-86	SOCIETE DES PRODUITS NESTLE S.A.	Process and apparatus for producing agglomerated water soluble particulate materials such as the soluble or instant coffee.	15-09-90	2/00, 2/16.	185-C&E (Group)-XVIII.	FC.
167216	04-04-86	DEUTSCHE TEXACO AG.	A process for producing an improved strongly acidic cation exchange material for use as a long life catalyst.	22-09-90	31/10, 39/08	40-B- Group-IV(I)	FC.
16722	29-09-88	PROJECTS & DEVELOPMENT INDIA LTD.	A process for manufacture of improved hydrogenation catalyst based on copper oxide supported on kieselgur for the conversion of crotonaldehyde to N-Butanol.	22-09-90	23/00, 23/72.	40-B	IC.
167224	10-04-87	ARLIN CARVEL LEWIS.	A process for the gasification or combined gasifications and liquefaction of carbonaceous materials in an electrolytic cell.	22-09-90	19/00	70-C <sub>3</sub> ; s	F.
167297	07-03-88	INDIAN PETRO-CHEMICALS CORPN. LTD.	A process for the preparation of an improved catalytic composite material useful for the alkylation of toluene with methanol to xylenes.	06-10-90	11/00	40B-IV (I); 32B-IX(I)	IC.
167324	11-06-86	CHARBONNAGES DE FRANCE (ESTABLISHMENT PUBLIC).	A device for controlling the supply of fluidizing gas for a fluidizing grating.	06-10-90	8/24, 8/44.	28-C & 85-J —Groups-XXX(I) & XXXI.	FC.
167342	11-06-86	F.L. SMIDTH & CO.	Gas suspension reactor.	13-10-90	8/10	40-F- Group-IV (I).	FC.
167440	30-06-86	SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V.	Multitube reactor for carrying out a process for catalytic conversion of a gas or a liquid.	27-10-90	8/00	40-A <sub>1</sub> &2- Group-IV (I)	FC.

1	2	3	4	5	6	7	8
167448	12-06-86	SNAMPROGETTI S.P.A. & NIMSK-NAUCHNOISLEDOVATELSKII INSTITUTE MONOMEROV DLIJA SINTETICHESKOGO KAUCHUKA.	Method for the preparation of a catalyst for the dehydrogenation of C <sub>3</sub> -C <sub>5</sub> paraffins.	27-10-90	21/00, 23/00,	40B, 32B-Group IV(I) IX(I).	FC.
167669	01-12-86	IMPERIAL CHEMICAL INDUSTRIES PLC.	A catalyst system for the formation of forms.	01-12-90	31/04	40B-IV (I)	FC.
167707	06-11-86	SHELL INTERNATIONAL RESEARCH MAATSCHAPPIJ B.V.	A method for the preparation of a catalyst suitable for the preparation of hydrocarbons.	08-12-90	21/06, 23/70.	40-B-Group-IV (I)	FC.
167750	17-12-87	OPYTNO-EXPERIMENTALNY ZAVOD POLIMERIYKHIZDELY.	Process for preparing rubber powder from natural or synthetic rubber.	15-12-90	2/00	104-K	FC.
167751	25-02-86	THE M.W. KELLOGG COMPANY.	Hydrotreating reactor for hydrotreating hydrocarbons.	15-12-90	10/00	40-A <sub>2</sub>	FC.
167821	11-02-87	1. NADIR MIR-IBRAGIM OGLY SEIDOV. 2. FAIG OMAR OGLY GUSEINOV. 3. TOFIC NIYAZ OGLY ALLAKHVE RDIEV. 4. FARKHAD AKHAD OGLY ALIEV. 5. VALENTINA FEDOTVNA MAMEDOVA. 6. KASUM GASAN OGLY KASUMOV. 7. ALEXI PAVLOVICH VOROZHEIKIN.	A method for separating a catalyst for oligomerization and polymerization of olefins and alkylation of aromatic hydrocarbons.	29-12-90	31/00, 31/22.	40-B	F.

## B 01 L : Chemical or physical laboratory apparatus for general use.

166407	06-10-86	ISOVER SAINT-GOBAIN, "LES MIROIRS".	Method of and apparatus for forming an insulating sheath particularly of mineral fibres, covered with a film.	28-04-90	11/02	48/C	FC
166834	25-02-87	ANTHONY ATHANASSLADIS.	A continuous method of deodorising or unacidifying food oils fats and apparatus therefor.	21-07-90	11/00	40-F, 77-D	F.
167044	19-02-86	HIRAYAMA SETSUBI KABUSHIKI KAISHA.	A cleaning unit for making a clean room.	25-08-90	1/04	6-A2-Group-XLVII(I)	FC.

1	2	3	4	5	6	7	8
B 02	: CRUSHING, PULVERISING OR DISINTEGRATING; PREPARATORY TREATMENT OF GRAIN FOR MILLING						
B 02 C	: CRUSHING, PULVERISING OR DISINTEGRATING IN GENERAL, MILLING GRAIN.						
165878	28-08-85	REIMBOLD & STRICK GMBH & CO.	Annular gap-type ball mill for pulverizing hard mineral substances.	03-02-90	15/00	94-A	FC.
165903	14-07-86	COMBUSTION ENGINEERING, INC.	Mechanical spring journal assembly for a bowl mill.	10-02-90	2/00	94-B	FC.
166024	06-11-85	F.L. SMIDTH & CO.A/S.	A swept tube mill for grinding particulate material.	03-03-90	13/02	94-G	FC.
166118	22-07-87	1. VIRENDRA KHANTILAL SHAH 2. RAJU MANIKANT KOTHARI 3. VIKRAN MANIKANT KOTHARI. 4. RAMESH AMULAKHARAI SHAH, AND PARTNERS OF ELECTRO-MECH ENGINEERING.	An improved flour mill.	17-03-90	7/00	94-E	I, IC.
166160	10-04-87	WALCHAND NAGAR INDUSTRIES LIMITED.	An improved sugar cane mill roller.	24-03-90	4/00	94-I	IC
166229	28-05-86	KRUPP POLYSIUS AG.	Apparatus for two-stage crushing of brittle material.	31-03-90	4/42	94-H	FC.
166426	05-11-86	COMBUSTION ENGINEERING INC.	Articles embodying a wear resistant surface layer.	05-05-90	4/00	94-H	FC
166429	14-11-86	THE BABCOCK & WILCOX COMPANY	Improved safety control device for a coal pulverizing mill.	05-05-90	11/06, 25/00,	94-G;E	FC.
166724	25-07-86	FULLER COMPANY	Grinding mill.	14-07-90	4/00, 4/02.	94H	FC.
166964	25-06-86	KRUPP-POLYSIUS AG.	Apparatus for the crushing of material for communication.	11-08-90	4/00, 4/02.	94H	FC.
167322	30-05-86	HITACHI Zosen CORPORATION.	Milling apparatus.	06-10-90	4/02.	94-I-Group-XXXIII (4)	FC.
167469	12-08-88	MOHAN PRABHAKARA SHIRGAONKAR.	A roller for extracting juice from sugar-cane.	03-11-90	4/28	94I-XXXIII(4)	I.
167624	30-12-86	BELGORDSKY TECHNOLOGY CHESKY INSTITUT STROITELNYKH MATERIALOV IMENI I.A. GRISHMONOVA	Ball-tube mill for grinding of materials.	24-11-90	17/06, 17/18.	94A-XXXIV(2)	FC.



1	2	3	4	5	6	7	8
167625	30-12-86	BELGORODSKY TEKHOLOGI- CHESKY INSTITUT STROITEL'NYKH MATERIALOV IMENI I.A. GRISHMANOVA.	Ball-tube mill for grinding of material re- quired for industrial uses particularly in the cement and mining industries.	24-11-90	17/06, 17/18	94A- XXXIV(2)	FC.
167648	07-12-87	1. KRASNOYARSKY POLYTEKH- NICHESKY INSTITUT.  2. INSTITUT KHIMII TVERDOGO TELA I PERERABOTKI MINERALNOGO SYRYA SIBIRSK OGO OTDELE NIA AKADEMII NAUK SSSR.	Centrifugal mill.	01-12-90	15/00	94-A,G	FC.
167743	14-07-86	NAUCHNO IZSLEDOVATELSKI INSTITUT PO CHERNA METALURGIA.	Disc Mill.	15-12-90	7/00	94-C- Group- XXXIV(2).	FC.
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B 03	: SEPERATION OF SOLID MATERIALS USING LIQUIDS OR USING PNEUMATIC TABLES OR JIGS; MAGNETIC OR ELECTROSTATIC SEPARATION.						
B 03 B	: Separating solid materials using liquids using pneumatic tables or jigs.						
165795	02-06-86	KLAUS SCHONERT.	Method for obtaining ore/mineral con- centrates from raw ores/raw materials and a jig therefor.	13-01-90	5/00	198-A	F.
165954	23-01-86	LOWAN (MANAGE- MENT) PTY LIMITED.	Centrifugal jig.	17-02-90	4/00	141/D	FC
165987	29-09-86	CRA SERVICES LIMITED.	Apparatus for classifying particulate material.	17-02-90	13/00	167-C <sub>2</sub>	FC.
166704	18-12-86	1. AMBERGER KACLINWEREKE GMBH. 2. DYNAMIT NOBEL AG.	An improvement in a multistage arrange- ment for countercurrent washing of suspended solid particles.	07-07-90	3/00	198-B	FC.
167158	29-06-87	UNIVERSITY OF QUEENSLAND.	Apparatus for control of jig separators for minerals.	08-09-90	13/00	198-A	FC.
167227	17-06-87	VSESOJUZYNY NAUCHNO- ISSLEDOVATELSKY I PROEKTNY INSTITUT ALJUMINIEVOI, MAGNIEVOI I ELEKTRODNOI PROMYSHLENNOSTI.	Method of processing red mud waste pro- duct of alumina production.	22-09-90	5/00	141-D, 198-B.	FC.
167473	27-05-87	ZABRZANSKIE GWARECTWO WEGLOWE	A jig for treatment of mine raw materials especially hard coal.	03-11-90	4/00, 5/00, 5/10, 5/24.	198-A	FC.

1	2	3	4	5	6	7	8
167712	02-05-86	ZABRZANSKIE GWARECTWO WEGLOWE KOPADNLA WEGLA KAMIENNEGO, "ZABRZE- BIELSZOWICE"	Pulsator for enriching minerals such as hard coal.	08-12-90	5/60, 5/28.	198A&B Group- XXXIV(5)	FC.
B 03 C: Magnetic or electrostatic separation.							
166510	08-07-86	F.L. SMIDTH & CO.A/S.	Triggering circuit for thyristor protection in an electrical pulse generator.	19-05-90	3/66	206H-1	FC.
B 03 D : Flotation; Differential sedimentation.							
166704	18-12-86	1. AMBERGER KACLINWEREKE GMBH. 2. DYNAMIT NOBEL AG.	An improvement in a multistage arrange- ment for countercurrent washing of sus- pended solid particles.	07-07-90	1/00, 3/00.	198-b	FC.
167219	10-04-86	KEMIRA OY.	An improvement in a process for the sepa- ration of phosphate minerals from a phos- phate ore.	22-09-90	1/02	198-B- Group- XXXIV (5).	FC.
167321	20-05-86	HENKEL KOMMANDIT- GESELLSCHAFT AUF AKTIEN.	A process for recovering of non-sulfidic minerals from an ore by flotation.	06-10-90	1/00	198-B- Group- XXXIV(5)	FC.
B 04 : CENTRIFUGAL APPARATUS OR MACHINES FOR CARRYING OUT PHYSICAL OR CHEMICAL PROCESSES.							
B 04 B : Centrifuges.							
166541	02-04-87	BELOIT CORPORATION.	Rotating separator.	02-06-90	3/00	37-A	FC.
166962	25-04-86	UNITED COAL COMPANY.	A centrifuge.	11-08-90	1/00	37-B	FC.
B 04 C : Apparatus using free vortex flow e.g. cyclones.							
166611	17-06-86	B.W.N. VORTOIL RIGHTS CO. PTY LTD.	Cyclone separator.	16-06-90	7/00	37-A	FC.
167366	26-08-87	BWN VORTOIL LIMITED.	Cyclone separator.	17-11-90	3/00	37-A	FC.
167574	27-10-86	SHELL INTER- NATIONALE RE- SEARCH MAATSCHAPPIJ B.V.	Apparatus and process for solids-fluid separation.	17-11-90	3/04	40 F- Group- IV(I)	FC.
B 05 : SPRAYING OR ATOMISING IN GENERAL; APPLIYING LIQUIDS OR OTHER FLUENT MATERIALS TO SURFACES IN GENERAL.							
B 05 B : Spraying apparatus, atomising apparatus; Nozzles.							
166737	28-04-86	NORDSON CORPORATION.	Powder spray gun for spraying air entrained solid particulate powder.	14-07-90	7/00	173B	FC.

1	2	3	4	5	6	7	8
166904	25-04-88	STATEFIELD EQUIPMENTS PVT. LTD.	Improvement in or relating to spray gun.	04-08-90	7/02	173-B-XXIX.	IC.
166991	11-01-86	NORDSON CORPORATION.	Electrostatic spray coating apparatus.	11-08-90	1/00, 5/00.	173-B	FC.
167080	11-06-87	CASTOLIN S.A.	A device for the thermal spraying of build up welding materials.	25-08-90	1/00, 15/00	188	FC.
167083	27-01-86	PERETZ ROSENBERG.	A pulsator device connectible to a pressurized fluid supply line for converting the fluid pressure of the line to a pulsating pressure.	25-08-90	1/08.	5-D, 101-D& 173-A&B ; Groups: I(1); XXVIII(2)& XXIX(2).	F.
167381	07-04-86	THE DOW CHEMICAL COMPANY	A tap outlet in a floor of a vessel through which the liquid contents of said vessel may be drained.	20-10-90	1/00	85-C& 195-D Groups-XXXI & XXIX(3)	FC.

## B 05 C : Apparatus for applying liquids or other fluent materials to surfaces, in general.

166079	29-08-88	CHANABASAPPA BASALINGAPPA GANJI.	High pressure high temperature beam dyeing machine having partially flooded system and a process of dyeing polyester and/or polyester blended fabrics/yarn, by the said machine.	10-03-90	5/00	62-B-XXII(I)	I.
166688	01-10-86	VIDEOCOLAR.	Machine for depositing a product on a plane horizontal surface of an object.	30-06-90	19/00	194-B	FC.
167080	11-06-87	CASTOLIN S.A.	A device for the thermal spraying of build up welding materials.	25-08-90	19/00	188	FC.

## B 05 D : Processes for applying liquids or other fluent materials to surfaces, in general.

167801	17-07-86	MASCHINEN-FABRIK RIETER AG.	A flock delivery system.	22-12-90	1/40	172-C <sub>9</sub> -Group-XX.	FC.
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## B 07 : SEPARATING SOLIDS FROM SOLIDS; SORTING

B 07 B : Separating solids from solids by sieving, screening, or sifting or by using gas currents; Other separating by dry methods applicable to bulk material, e.g. loose articles fit to be handled like bulk material.

166204	24-07-87	FLEXISTACK PTY. LTD.	A mesh screen.	31-03-90	1/46, 1/28, 1/06.	167-E,B,C-XXXIV (4)	FC.
166832	29-09-86	CRA SERVICES LIMITED.	Apparatus for feeding a body of particulate material and transportation thereof on particle by particle basis.	21-07-90	7/00	125B <sub>1</sub> & B <sub>2</sub>	FC.
166869	17-04-86	FI SMIDTH & CO. A/S.	Separator for sorting particulate material.	28-07-90	7/083	167-G-Group-XXXIV (4).	FC.

1	2	3	4	5	6	7	8
<b>B 08 : CLEANING</b>							
<b>B 08 B : Cleaning in general; Prevention of fouling in general.</b>							
155357	07-03-85	L.B.C. SERVICES (PROPRIETARY) LIMITED.	Conveyor belt scraper units.	27-01-90	1/02	116-C	FC.
155022	24-10-85	CATERPILLAR INC.	An apparatus flushing foreign particles from a passage in an engine block.	03-03-90	3/02, 5/02	151-B	FC.
166296	01-11-85	VAN ROMPAY BOUD.	Scraper for removing growths such as anemones mussels, sea-woods, algae and calcareous growths from flat or arched surfaces.	07-04-90	13/00	71-G	F.
167079	27-05-87	UNISHEFF VENTURES LIMITED	A method of preserving fabricated structures in contact with sea water from marine biofouling.	25-08-90	17/00	40-F	FC.
<b>B 21 : MECHANICAL METAL-WORKING WITHOUT ESSENTIALLY REMOVING MATERIAL; PUNCHING METAL.</b>							
<b>B 21 B : Rolling of metal.</b>							
166019	06-09-85	SUMITOMO METAL INDUSTRIES LTD.	A method and a system for continuously rolling a bloom or billet.	24-02-90	13/12, 37/02.	129-J	FC.
166784	11-03-88	OUTOKUMPU OY.	A method for manufacturing tubes, bars and strips of a non-ferrous metal.	14-07-90	1/00	129 J,B, G- Gr. XXXV.	FC.
166795	28-07-87	SUMITOMO HEAVY INDUSTRIES LTD.	Inertia force balancing apparatus.	21-07-90	21/00, 37/00.	127-J, 129-J.	FC.
166913	22-08-85	ALLEGHENY LUDLUM STEEL CORPORATION.	An improved method and apparatus for direct casting of molten metal into continuous strip of crystalline metal.	04-08-90	1/46	33-A, 129-J	FC.
<b>B 21 C : Manufacture of metal sheets, wire rods, tubes or profiles, otherwise than by rolling; Auxiliary operations used in connection with metal-working without essentially removing material.</b>							
165748	17-07-86	N.V. PHILIPS' GLOBILAMPEN- FABRIEKEN.	Method of manufacturing a drawing die.	06-01-90	3/00	33-F	FC.
165807	13-12-85	STEVENS & BULLIVANT LIMITED.	An apparatus for reduction extrusion of tubes.	13-01-90	23/00	136-C	FC.
166406	23-09-86	MR. NORBERT UMLAUF.	Device for pulling or drawing metallic strips.	28-04-90	1/00	129-B	F.
166784	11-03-88	OUTOKUMPU OY.	A method for manufacturing tubes, bars and strips of a non-ferrous metal.	14-07-90	1/00, 23/00	129 J,B,G, Gr. XXXV.	FC.
<b>B 21 D : Working or processing of sheet metal or metal tubes, rods or profiles without essentially removing material; Punching.</b>							
165932	16-11-82	MARCEL MATIERE.	Hollow open-ended structure such as a conduit or duct for conveying fluids, Housing cables or use as a thoroughfare for pedestrian or vehicular traffic.	10-02-90	51/00	93,136-D	F.
167474	24-06-87	WESTINGHOUSE ELECTRIC CORPORATION.	An electrical apparatus.	03-11-90	53/04	98-G	FC.

1	2	3	4	5	6	7	8
<b>B 21 F : Working or processing of wire.</b>							
155153	01-04-87	OY NO KITA AB.	An apparatus to form a product such as cable by alternate reverse twisting method.	24-03-90	7/00	48A <sub>2</sub> + A <sub>4</sub> -LVIII-(3), 172D <sub>3</sub> -XX; 162-LXIV (7).	FC.
<b>B 21 J : Forging, Hammering, Pressing, Riveting; Forge Furnaces.</b>							
155999	05-12-83	MADHUSUDAN HIRALAL DESAI	An improved hydraulic drive for forging press.	04-08-90	9/14	102A- B-XXIX (1)	I.
<b>B 21 K : Making forged or pressed products, e.g. horseshoes, rivets, bolts, wheels.</b>							
155932	16-11-82	MARCEL MATIERE.	Hollow open-ended structure such as a conduit or duct for conveying fluids, housing cables or use as a thoroughfare for pedestrian or vehicular traffic.	10-02-90	21/00	93,136-D	F.
167682	29-01-87	COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH.	An improved process for the manufacture of a tool for electrochemical machining of materials and the tool so manufactured	08-12-90	5/12	129-G	IC.
<b>B 22 : CASTING, POWDER METALLURGY.</b>							
<b>B 22 C : Foundry, moulding.</b>							
155877	23-08-85	ACME RESIN CORPORATION.	Process for making foundry cores and molds.	03-02-90	1/16	136-F	FC.
166877	30-03-88	KABUSHIKI KAISHA KOMAT- SU SEISAKUSHO.	Mould lubricant exhausting apparatus for knocking out mechanism.	28-07-90	9/00	33D&E	FC.
<b>B 22 D : Casting of metals; Casting of other substances by the same processes or devices.</b>							
165785	15-11-85	PONT-A-MOUSSON S.A.	An installation for continuous vertical ascending casting of iron pipes.	13-01-90	11/14	33-A	FC.
165812	23-09-85	INSTITUTE PO METALOZNANIE I TEKNOLOGIA NA METALITE.	Method and apparatus for casting under pressure.	20-01-90	18/04, 46/00.	33-A	FC.
155953	02-12-85	PONT-A-MOUSSON S.A.	An apparatus for the continuous vertical extraction casting of pipes from spheroidal graphite cast iron.	03-03-90	13/02	33-A	FC.
166369	28-02-86	IMPERIAL CLEVITE INC.	Cast metal composite article.	21-04-90	11/00	33-A, 107-C	FC.
166729	23-09-86	PONT-A-MOUSSON S.A.	Installation for the step by step extraction from an ingot-mould of an elongated solid product.	14-07-90	7/02	130-F	FC.
166913	22-08-85	ALLEGHENY LUDLUM STEEL CORPORATION.	An improved method and apparatus for direct casting of molten metal into continuous strip of crystalline metal.	04-08-90	11/00	33-A, 129-J	FC.

1	2	3	4	5	6	7	8
166914	22-08-85	ALLEGHENY LUDLUM STEEL CORPORATION.	Apparatus for continuous casting of molten metal to a continuous strip of crystalline metal.	04-08-90	11/04	33-A, 129-J	FC.
167210	31-03-85	FOSECO INTERNATIONAL LIMITED.	A feeder sleeve for use in the casting of molten metal.	03-09-90	35/04	33-A-Group-XXXIII.	FC.
167215	02-04-86	USINOR ACIERS.	A machine for removing burrs from an edge of a side of a slab which issue from a continuous casting plant.	22-09-90	11/128	33-D: Group-XXXIII(3)	FC.
167368	30-01-85	GEORG FISCHER AKTIENGESELLSCHAFT.	A method for obtaining impurity-free molten iron from molten iron having impurities.	13-10-90	23/00, 27/00, 43/00.	33-D	FC.
167682	29-01-87	COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH.	An improved process for the manufacture of a tool for electrochemical machining of materials and the tool so manufactured.	08-12-90	19/06	129G	IC.

**B 22 F : Working metallic powder; Manufacture of articles from metallic powder; Making metallic powder.**

165836	01-10-85	EXXON RESEARCH AND ENGINEERING COMPANY.	A method for producing dispersion strengthened composite metal powders.	20-01-90	9/00	35-E	FC.
165878	28-08-85	REIMBOLD & STRICK GMBH & CO.	Annular gap-type ball mill for pulverizing hard mineral substances.	03-02-90	9/04	94-A	FC.
165885	23-02-87	WASHINGTON UNIVERSITY TECHNOLOGY ASSOCIATES, INC.	A method for granulation of a powdery material and apparatus for carrying out said process.	03-02-90	9/08	40-F	FC.
166782	25-01-88	1. GANGADHAR SADASHIV TENDOLKAR. 2. KASHI PRASAD MODI. 3. NARAYAN PANKAN NAIR.	An improved process for the manufacture of a composite of silver tin oxide, containing molybdenum trioxide and/or tungsten trioxide, electrical contact tips.	14-07-90	3/12	48A <sub>3</sub>	I.
16776	12-05-87	J.P.I. TRANSPORTATION PRODUCTS, INC.	A method of producing a powdered metal aluminium base bearing material.	15-12-90	7/00	9-F	FC.

**B 23 : MACHINE TOOLS; METAL-WORKING NOT OTHERWISE PROVIDED FOR.**

**B 23 B : Turning; Boring.**

165832	29-07-85	PROMAT INDUSTRIE	Numerical-control apparatus for machining holes in structural sections.	20-01-90	49/04, 43/00	129C 131B <sub>2</sub>	FC.
166378	31-07-86	HINO JIDOSHA KOGYO KABUSHIKI KAISHA.	A machine tool for drilling of jobs and work on drilled jobs simultaneously, in parallel manner.	21-04-90	41/00	129C	F.
166567	01-01-86	WIDIA (INDIA) LIMITED.	A drill holder.	09-06-90	51/00	129C	IC.
166975	15-10-87	VINAY MADHUKAR SUKHDANI.	An improved adjustable tool holder for a machine tool.	11-08-90	29/04	129-P-XXXV.	I.
167442	29-04-86	S&L MASKIN AB.	A tap holder intended for fastening in a chuck.	27-10-90	31/10	129-K Gr-XXXV.	FC.

1	2	3	4	5	6	7	8
B 23 C : MILLING							
166731	23-01-86	KHOSLA ENGINEERS.	Strip grinding machine for grinding the edges of a metal strip in the manufacture of safety razor blades.	14-07-90	3/00	51D; 129FG	IC.
B 23 D : PLANNING; SLOTTING; SHEARING; BROACHING; SAWING; FILING; SCRAPING; LIKE OPERATIONS FOR WORKING METAL BY REMOVING MATERIAL, NOT OTHERWISE PROVIDED FOR							
165791	05-11-85	DR. HANS WIEDERKEHR.	Milling head and a milling machine with said milling head.	13-01-90	37/00	95-H, I; 129-F, H.G.	F.
165792	05-11-85	DR. HANS WIEDERKEHR.	Grinding head and a grinding machine with said grinding head.	13-01-90	37/00	95-H, I; 129-F, H.G.	F.
B 23 H : WORKING OF METAL BY THE ACTION OF A HIGH CONCENTRATION OF ELECTRIC CURRENT ON A WORK-PIECE USING AN ELECTRODE WHICH TAKES THE PLACE OF A TOOL; SUCH WORKING COMBINED WITH OTHER FORMS OF WORKING OF METAL.							
167286	17-08-87	INDIAN INSTITUT OF TECHNOLOGY.	A method of and a device for manufacturing thin perforated sheets of hard and/or brittle metallic members.	29-09-90	9/14	129-C, Group-XXXV.	IC.
B 23 K : SOLDERING; WELDING; CLADDING OR PLATTING BY SOLDERING OR WELDING; CUTTING BY APPLYING HEAT LOCALLY, e.g. FLAME CUTTING, WORKING BY LASER BEAM.							
166797	08-09-88	DIGAMBAR MADHAV CHAUDHARY.	Improved thermit process of welding rail sections.	21-07-90	23/00	129-Q	I.
166815	20-01-86	HOT-HED INC.	A method of manufacturing a preheater for preheating pipes during welding and preheater thereof.	21-07-90	5/213	12-D & 129-Q XXXIII (2) & XXXV.	FC.
167133	01-03-88	SANDVIK ASIA LTD.	Method of manufacturing a fused hard facing rod/electrode for hard facing applications.	01-09-90	35/22	129Q-XXXV.	IC.
167239	03-04-86	& THOMSON WELDING & INSPECTION LIMITED.	Apparatus and method for friction welding.	22-09-90	20/12	129-Q-Group-XXXV.	FC.
167240	03-04-86	THOMSON WELDING & INSPECTION LIMITED.	Friction welding apparatus.	22-09-90	20/12	129-Q-Group-XXXV.	FC.
B 23 P : OTHER WORKING OF METAL; COMBINED OPERATIONS; UNIVERSAL MACHINE TOOLS.							
167047	13-03-85	ADVANCED COMPOSITE MATERIALS CORPORATION.	A sintered composite cutting tool.	25-08-90	13/28	129-C, F, H & P-XXXV.	FC.

1	2	3	4	5	6	7	8
167073	20-05-87	1. DNEPROPET-ROVSKY METALLURGI-CHESKY INSTITUT IMENI L. I. BREZHNEVA.  2. TSENTRALNY INSTITUT POVYSHENIA KVALIFIKATSII RUKOVO- DYASCHIKII RABOTANIKOV I SPE TSLALISTOV CHERNOI METALLURGII	Method and apparatus for manufacture of electrically welded straight-seam pipe free from inside flesh.	25-08-90	23/00	149-D	FC.
167101	16-06-87	FRIED KRUPP GESELLSCHAFT MIT BESCHRANKTER HAFTUNG.	Cutting tool.	01-09-90	15/28	129-G	FC.
167213	21-03-86	RALPH MULLENBERG.	Conical stressing device for connecting a hub to a shaft.	22-09-90	11/00	76-F, & 129-G Groups-LXIV(4) & XXXV.	F.
167427	20-05-88	VIJAY AMBUBHAI SHETH	A method of manufacturing a tool bit for drilling holes having square and higher polygonal cross-sections.	27-10-90	15/32	129 CGR XXXV.	I.
B 23 Q : DETAILS, COMPONENTS, OR ACCESSORIES FOR MACHINE TOOLS, e. g. ARRANGEMENTS FOR COPYING OR CONTROLLING, MACHINE TOOLS IN GENERAL, CHARACTERISED BY THE CONSTRUCTION OF PARTICULAR DETAILS OR COMPONENTS; COMBINATIONS OR ASSOCIATIONS OF METAL-WORKING MACHINES, NOT DIRECTED TO A PARTICULAR RESULT.							
166015	02-09-85	GILDEMEISTER DEVIEG SYSTEM WERKZEUGE GmbH.	Tool and workpiece holding arrangement for material removing machining.	24-02-90	3/00	129-G	FC.
166366	27-12-85	DETROTT EDGE TOOL COMPANY	Machine slide bearing assembly.	21-04-90	1/00	129-G	FC.
166766	25-08-87	SATISH RAJARAM GAMBHIR.	Improved work-piece or job side clamping device.	14-07-90	3/06	95-C-XLIII(2)	I.
166975	15-10-87	VINAY MADHUKAR SUKHDANI	An improved adjustable tool holder for a machine tool.	11-08-90	3/00	129-P-XXXV	I.
B 24 : GRINDING, POLISHING.							
B 24 B : Machines, devices, or processes for grinding or polishing, Dressing or conditioning of abrading surfaces, Feeding of grinding, polishing, or lapping agents.							
155894	31-01-85	INDIAN INSTITUTE OF TECHNOLOGY.	A dressing attachment for a grinding wheel of a surface grinder.	03-02-90	53/00, 53/12.	153	IC.
166426	05-11-86	COMBUSTION ENGINEERING, INC	Articles embodying a wear resistant surface layer.	05-05-90	15/00	94-A	FC.
167633	13-05-86	MCPHERSON'S LIMITED.	Blade sharpener.	24-11-90	3/00	51-B-Group-LXVI(2)	
167727	29-10-87	KABUSHIKI KAISHA NISSHIN SEISAKUSHO.	Truing device for hones.	15-12-90	33/00	153	FC.



1	2	3	4	5	6	7	8
B 24 C : Abrasive or related blasting with particulate material.							
166218	29-10-85	FRAMATOME & CIE.	Process and device for making a corrosion resistant steam tube for a steam generator.	31-03-90	1/00,	176-L 3/06	F.
B 25 : HAND TOOLS, PORTABLE POWER DRIVEN TOOLS; HANDLES FOR HAND IMPLEMENTS; WORKSHOP EQUIPMENT MANIPULATORS.							
B 25 B : Tools or bench devices not otherwise provided for, for fastening, connecting, disengaging or holding.							
166134	24-12-85	TRI-STAR DATA	A fastening device for clamping an un-threaded intermediate member to a threaded receiving member.	17-03-90	27/073	76-B	FC.
166297	05-11-85	MAX PASBRIG.	A universal wrench.	07-04-90	13/10, 13/58	95-K	F.
166576	24-02-86	EDUARD WHILE GMBH CO.	Reversible ratchet wrench.	09-06-90	13/46	95-K	FC.
166874	04-11-87	MOSKOVSKOE NAUCHNO-PRIL-ZVODSTVENNOE OBIEDINENIE PO MEKHANIZIROVANNOMU STROITELNOMU INSTRUMENTU I OTDELOCHNYM MASHINAM (NPO "VNIISM").	Impact wrench.	28-07-90	19/90, 21/02	95-K	FC.
167211	13-03-86	RAJAN UNIVERSAL EXPORTS (MFRS) PVT. LTD.	A multipurpose hand tool.	22-09-90	13/00	95-D, G, H & K-Group- XLIII(2)	IC.
167212	13-03-86	RAJAN UNIVERSAL EXPORTS (MFRS) PVT. LTD.	A multipurpose hand tool.	22-09-90	13/00	95-D, G, H, & K-Group- XLIII(2)	IC.
167726	28-10-87	ROLF PEDDINGHAUS.	A vice.	15-12-90	1/00, 1/10.	146-A	F.
B 26 : HAND CUTTING TOOLS, CUTTING SEVERING.							
B 26 B : Hand-held cutting tools not otherwise provided for.							
166756	27-03-86	1. JACKIE ANDRE DE RUYTER. 2. JEANPIERREDE RUYTER. 3. DANIEL BURGER.	Cutting appliance for use in cutting average width bands or strips of woven, super-imposed fabric or composite fibre materials.	14-07-90	13/00, 17/00.	128A, 52A	F
167266	16-04-87	ORISSA RENEW-ABLE ENERGY DEVELOPMENT AGENCY	A device for cutting betel-nut.	29-09-90	17/00	52-A	IC.
B 26 D : Cutting, Details common to machines for severing, e.g. by cutting, perforating, punching, stamping-out.							
166323	20-10-86	VOEST-ALPINE AKTIENGES-LSCHAFT.	An apparatus for controlling the movement of an universally swivelable cutting arm of a partial cut cutting machine.	14-04-90	5/04, 5/06.	95-I	FC.

1	2	3	4	5	6	7	8
166748	04-02-88	TRADE & INDUSTRY PRIVATE LIMITED.	Improved method of processing tea leaves and tea processor therefor.	14-07-90	5/00, 7/00.	185A+ D1+185C	IC.
167728	11-11-87	MCPHERSON'S LIMITED.	Retractable blade knife.	15-12-90	1/00	51-B	FC.
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B 27	: WORKING OR PRESERVING WOOD OR SIMILAR MATERIAL; NAILING OR STAPLING MACHINES IN GENERAL.						
B 27 F	: Dovetailed work; Tenons, Slotting machines, Nailing or stapling machines.						
166485	04-12-85	SENCO PRODUCTS INC.	Modular pneumatic tool for driving fasteners such as staples and nails.	19-05-90	7/02, 7/06.	76F, 138D	FC.
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B 28	: WORKING CEMENT, CLAY, OR STONE						
B 28 B	: Shaping clay or other ceramic compositions, slag or mixtures containing cementitious material, e.g. plaster.						
166201	06-07-87	GREAVES FOSECO LIMITED.	Particulate composition and a method for the protection of graphite electrodes of electric arc furnace.	31-03-90	11/6	97BLIX(2) +144B XLII(3)	IC.
166470	27-03-87	DIDIER-WERKE AG.	A refractory moulded body having at least one flow passage for a metallic melt.	19-05-90	7/00	33-F	FC
166509	26-12-85	NYUGATMAGYARORSZAGI FAG-AZDASAGI KOMBINAT.	A process for making cement bodies by accelerated hardening of cement in a composition containing water, cement and fibrous material.	19-05-90	3/02	35-G	FC.
166572	30-01-86	NIPPON KOGEN CONCRETE CO. LTD.	Method and apparatus for manufacturing elongate concrete members.	09-06-90	7/02	35-C	FC.
165742	20-03-86	YUAN-HO LEE.	Moulding device for modular concrete unit.	14-07-90	7/22, 21/42, 21/76 & 23/00.	136 E+F	F.
166932	13-12-85	PONT-A-MOUSSON SA.	Method and apparatus for the manufacture of a pipe from spheroidal graphite cast-iron.	11-08-90	21/02	33-A-Group -XXXIII(3)	FC.
167092	10-03-86	1. VELAYIE AYDROSE MOHAMED. 2. BLAYIE MOHAMED HYDER SIRAJ.	Manufacture of precast articles using cement concrete cement mortar or the like material with or without reinforcement by vertical vibrosinking process and device for the same.	01-09-90	7/22	27C & L-Group-XXVI(I).	I.
167094	10-03-86	VELAYIE AYDROSE MOHAMED.	Improved mould system for casting articles using cement mortar, cement concrete or the like material.	01-09-90	7/00	136-F-Group-XIII	I.
167193	19-03-87	INDIAN INSTITUTE OF TECHNOLOGY.	A device for preparing pressed soil blocks for use in building and construction.	15-09-90	5/00	25-A	IC.
167701	27-05-86	ALCATEL N.V.	A method of producing an elongate porous body.	08-12-90	17/00	90F & J-Group-XXXVI	FC.

1	2	3	4	5	6	7	8
B 28 C : Preparing clay; Producing mixtures containing clay or cementitious material e.g. plaster.							
157522	15-12-86	AMERICAN COLLOID COMPANY.	A method of producing acid treated clay with increased effectiveness in filtering contaminants of a liquid.	24-11-90	1/06, 1/22	40F	FC.
B 29 : WORKING OF PLASTICS; WORKING OF SUBSTANCES IN A PLASTIC STATE IN GENERAL.							
B 29 B : Preparation or pretreatment of the material to be shaped; Making granules or preforms; Recovery of plastics or other constituents of waste material containing plastics.							
165855	25-02-86	THE FIRE STONE TIRE & RUBBER COMPANY.	A process for producing a densified pellet of guayule plant material.	27-01-90	9/00	104-J	FC.
166633	25-08-86	EMS-INVENTA AG.	Apparatus for cooling and conditioning melt-spun material.	30-06-90	13/00, 13/04	50-D, 172-D <sub>4</sub>	FC.
167028	17-06-86	SOLVAY & CIE.	Apparatus for the rapid determination of rheological properties of thermoplastics.	18-08-90	5/00	40-F	FC.
167704	04-07-86	HEPWORTH BUILDING PRODUCTS LIMITED.	A method and apparatus for making a pipe coupling and articles made thereof.	08-12-90	11/08	136-B-Group-XIII.	FC.
167716	13-05-86	CMB PACKAGING (U.K.) LIMITED.	A heating apparatus for sheet material.	08-12-90	13/02	85-G-Group-XXXI	FC.
B 29 C : Shaping or joining of plastics, Shaping of substances in a plastic state, in general; After-treatment of the shaped products.							
165842	26-05-86	E.I. DU PONT DE NEMOURS AND COMPANY.	A laminar molded, hollow article and process for making same.	27-01-90	47/00	136-E	FC.
165902	09-07-86	COLORTECH INC.	Method and apparatus for forming extruded products.	10-02-90	35/00, 39/00.	136-C,E	FC.
166335	28-11-85	PALANISAMY GOVINDASAMY.	A mountable cooling die for use with a heating die of a plastic extrusion system and a process for the manufacture of a plastic article thereby.	14-04-90	33/02	136-C	J.
166367	31-01-86	GFO GESELLSCHAFT FÜR OBERFLÄCHENTECHNIK M.B.H.	An improved method for coating transparent surfaces made of glass or synthetic material for producing coated surfaces having demirroring layers thereon.	21-04-90	13/00, 27/00.	144-B	FC.
166380	01-08-86	E.I. DU PONT DE NEMOURS AND COMPANY.	Process for melt fabricating tough polyethylene terephthalate articles with low gas and organic liquid permeability.	21-04-90	39/00	136-E	FC.
166393	15-10-85	HONDA GIKEN KOGYO KABUSHIKI KAISHA.	Process and apparatus for manufacturing embossed articles of synthetic resin.	28-04-90	59/06	136-L	FC.
166394	15-10-85	HONDA GIKEN KOGYO KABUSHIKI KAISHA.	A vacuum mold for vacuum-forming a heated plastic sheet with an imprinted grain pattern of the surface of the sheet.	28-04-90	33/06	136-F	FC.
166502	08-11-85	RAYCHEM CORPORATION.	A method of producing a substrate with protective covering.	19-05-90	63/00	136-L	FC.
166528	28-01-86	FLONIC.	Method of making synthetic membranes for a gas meter.	26-05-90	65/02	136-E	FC.

1	2	3	4	5	6	7	8
166680	28-01-86	STAMICARBON B.V. (LICENSING SUBSIDIARY OF DSM)	Process for preparing stretchable gel articles of linear highmolecular weight polyolefins.	30-06-90	71/00	136-E Group-XIII	FC.
166951	26-12-85	HONDA GIKEN KOGYO KABUSHIKI KAISHA.	A method of manufacturing an air permeable electrocast shell.	11-08-90	33/00	136E&F Group-XIII	FC.
167091	06-03-86	KABUSHIKI KAISHA KOBE SEIKO SHO.	Tire vulcanizer.	01-09-90	51/24	136M-XIII	FC.
167121	17-02-86	MINNESOTA MINING AND MANUFACTURING COMPANY.	Cable branch-off sealing member.	01-09-90	65/26	48-A-Group-LVIII(3)	FC.
167267	04-05-87	GALIC/MAUS VENTURES.	Method and apparatus for molding articles.	29-09-90	45/00	136-E,F	FC.
167280	15-05-86	METAL BOX PLC.	Method and apparatus for spin-welding together two opposed cylindrical surfaces of thermo plastics components.	29-09-90	65/06	136-E-XIII.	FC.
167319	15-05-86	METAL BOX PLC.	Spin-welding apparatus.	06-10-90	65/06	136-E-Group-XII	FC.
167320	15-05-86	METAL BOX PLC.	Spin-welding apparatus.	06-10-90	65/06	136-E-Group-XIII	FC.
167421	31-12-87	OLE BENDT RASMUSSEN.	Improved process and apparatus for stretching of a continuous polymeric sheet material.	27-10-90	55/18	136-K-XIII.	F.
167716	13-06-86	CMB PACKAGING (U.K.) LIMITED.	A heating apparatus for sheet material.	08-12-90	35/00	85-G-Group-XXXI.	FC.
167760	25-02-87	KOLIMORGEN TECHNOLOGIES CORPORATION.	Process for the manufacture of plastic articles having a metallic pattern on their surfaces.	15-12-90	63/00	152-E-XII(2)	FC.
167788	14-10-87	1. DU PONT CANADA INC. 2. UNITED CORPORATION CONSULTANTS LTD.	Method and apparatus for installing a pipe liner of synthetic polymer in a pipe section.	22-12-90	63/46	136-E,K	FC.
167795	09-07-86	OWNES-ILLINOIS PLASTIC PRODUCTS INC.	A bottle that is adapted to be filled with a liquid product that is at an elevated temperature.	22-12-90	49/04	179-B-Group-XL(6)	FC.
167869	10-11-87	FRANZ XAVER STARLINGER-HUEMER	A process for the manufacture of tubular article made from plastics for the fabrication of sacks.	29-12-90	47/00	136-E	F.

**B 29 D : Producing particular articles from plastics or from substances in a plastic state.**

165767	18-12-85	BP CHEMICALS LIMITED.	A composition based on ethylene polymer suitable for the manufacture of stretchable cling film and a process for preparing the same.	06-01-90	7/00	53-E	FC.
165922	06-11-87	PRUTEC LIMITED.	An improved of forming a polycrystalline thin film on a transparent substrate for the production, for example, of cadmium sulphide solar cells.	10-02-90	7/00	14-C	FC.

1	2	3	4	5	6	7	8
165135	24-04-86	BANDAG LICENSING CORPORATION.	Differential pressure control valve.	24-03-90	3/00	195-E,F	FC.
165193	14-01-88	J.F. ADOLFF AG.	Method for manufacturing a web of plastic turf for sports grounds.	24-03-90	7/00	155-B,E	FC.
165236	25-10-85	CONTINENTAL GUMMI-WERKE AKTIENGESELLSCHAFT	A method of producing conveyor belts from rubber or rubber-like plastics material.	31-03-90	9/00	136-D	FC.
166271	10-09-85	VALHALLA INVESTMENTS LIMITED.	A solid flat-proof tyre adapted to be fitted to a wheel rim.	07-04-90	30/02	136-M	FC.
166320	21-11-86	COSMO FILMS LIMITED.	Process for the preparation of improved polypropylene film and the polypropylene film so prepared.	07-04-90	7/01	34-A	IC.
166380	01-08-86	E.I. DU PONT DEMOURS AND COMPANY.	Process for melt fabricating tough polyethylene terephthalate articles with low gas and organic liquid permeability.	21-04-90	1/00	136-E	FC.
166419	18-12-85	T.R. DEVELOPMENTS LIMITED	A process for the production of hydrogel forming polymers.	05-05-90	11/00	32E-IX —(1)1.	FC.
166566	24-12-85	HOECHST AKTIENGESELLSCHAFT.	Process for manufacturing an abrasion resistant polyester film.	09-06-90	7/01	136-K	FC.
166711	20-10-87	CINCINNATI MILACRON INC.	A tool for manufacturing pipes with varying wall thicknesses.	14-07-90	23/00	136-E	FC.
165728	22-09-86	BANDAG LICENSING CORPORATION.	Bead seal ring unit	14-07-90	30/34, 30/54	205B,F, -G, (LVI)	FC.
167318	01-05-86	ENICHEM SINTESI S.P.A.	A PROCESS for preparing a diallyl-carbonate and diethylene-glycol-based optical-glass substitute.	06-10-90	11/00	171- Group- XXXVIII (4)	FC.
167412	15-04-87	SWAPAN MANILAL SHAH.	A machine for contour milling grinding and polishing of marbles, granite slabs blocks and the like.	20-10-90	1/30	178 XXV 1, (3)	
167532	28-05-86	THE DOW CHEMICAL COMPANY.	A method for the manufacturing of polymer composite films.	10-11-90	7/01	34-A- Group-X.	FC.
167649	01-01-88	ETHICON INC.	Bone screw.	01-12-90	1/00	19-E	FC.
167765	01-06-87	EXXON CHEMICAL PATENTS INC.	Sealable laminate for sealing and packaging.	15-12-90	7/01	76E- LXIV- (4).	FC.

B 30 : PRESSES.

B 30 B : Presses in general

165331	12-09-86	VITAMINS, INC.	Method for extracting soluble liquids from solids.	21-07-90	9/02	132-C	FC.
167232	14-03-86	AB AKERLUND & RAUSING.	A method and a device for making a deformable resilient elongated hollow profile having a surface layer, a predetermined original shape and having a wall portion which, in the cross section of original shape is curved.	22-09-90	3/00	129-J&O Group- XXXV.	FC.

1	2	3	4	5	6	7	8
<b>B 32 : LAYERED PRODUCTS.</b>							
<b>B 32 B : Layered product, i.e. products built-up of strata of flat or non-flat, e.g. cellular or honeycomb form.</b>							
165804	05-12-85	COLGATE-PALMOLIVE COMPANY.	Improved laminate of layers of ethylene vinylalcohol co-polymer, metal foil, paper and collapsible paste dispensing container made therefrom.	13-01-90	27/30	155-F2	FC.
165840	05-12-85	COLGATE-PALMOLIVE COMPANY.	Improved laminate of layers of polypropylene-metal foil and paper and a collapsible paste dispensing container made of said laminate.	20-01-90	27/32	155-F	FC.
166017	05-09-85	ELTECH SYSTEMS CORPORATION.	An organic plus inorganic fibre composite and a method of making it.	24-02-90	27/06, 27/18, 27/20	155-B	FC.
166236	25-10-85	CONTINENTAL GUMMI-WERKE AKTIENGESELLSCHAFT.	A method of producing conveyor belts from rubber or rubber-like plastics material.	31-03-90	25/00	136-D	FC.
166293	16-10-85	SEIBU POLYMER KASEI KABUSHIKI KAISHA.	High-brightness pavement marking sheet material.	07-04-90	5/16, 25/02.	155-F2	FC.
166528	28-01-86	FLONIC.	Method of making synthetic membranes for a gas meter.	26-05-90	31/14	136-E	FC.
166646	18-11-85	OWENS ILLINOIS PLASTICS PRODUCT INC.	Coextruded multilayer sheet and touch sleeve label made therefrom.	30-06-90	27/00	155-F2	FC.
166647	18-11-85	OWENS-ILLINOIS PLASTICS PRODUCT INC.	Coextruded multilayer sheet adapted for use as a solvent seal sleeve label on containers.	30-06-90	27/00	155-F2	FC.
166648	18-11-85	OWENS-ILLINOIS PLASTICS PRODUCTS INC.	Coextruded multilayer sheet and sleeve label for bottles.	30-06-90	27/00	155-F2	FC.
167054	26-03-83	OLE-BENDT RASMUSSEN.	A method of preparing a high strength sheet material.	25-08-90	27/32	136-E Group-XIII	F.
167656	03-09-87	LANXIDE TECHNOLOGY COMPANY.	A method of producing a self-supporting ceramic structure.	01-12-90	18/00	25-E, 35-E 193.	FC.
167765	01-06-87	EXXON CHEMICAL PATENTS INC.	Sealable laminate for sealing and packaging.	15-12-90	27/32	76-E-LXIV(4).	FC.
<b>B 41 : PRINTING; LINING MACHINES; TYPEWRITERS; STAMPS.</b>							
<b>B 41 F : Printing machines or presses.</b>							
165352	29-11-85	INTERNATIONAL BUSINESS MACHINES CORPORATION.	A flexible leader for guiding a ribbon in a printing apparatus.	03-03-90	13/02	154-D	FC.
166990	26-12-86	VEB KOMBINAT POLYGRAPH "WERNER LAMBERZ".	An improved damping apparatus in particular for a rotary offset printing machine.	10-03-90	7/28	154-D	FC.

1	2	3	4	5	6	7	8
166137	28-10-85	DRG(U.K.) LIMITED.	Printing roll with detachable sleeve.	17-03-90	3/36	154-D	FC.
166256	26-06-86	MASCHINEN-FABRIK WIFAG.	Apparatus for the accurate metering and uniform distribution of a liquid film on a rotating cylinder in a printing machine.	31-03-90	5/00	154-D	IC.
166672	03-12-85	J.G. MAILANDER. GmbH & CO.	A rotary printer for planographic and indirect letter press printing.	30-06-90	5/22	154-A	IC.
167025	11-06-86	DELA RUE GIORI S.A..	Method for manufacture of a plate cylinder and device for such manufacture.	18-08-90	9/06	154-D	IC.
167428	27-05-88	1. HEMANT MADHUKAR RANDIVE 2. NITIN BABU BHAI MEHTA.	Multipaten printing machine.	27-10-90	1/12	154-F XXXVI	I.

**B 41 J.** : Typewriters, Selective printing mechanisms, i.e. mechanisms printing otherwise than from a forme, Correction of typographical errors.

166230	30-05-86	PRIMAGES INC.	An ink ribbon cartridge for a printer.	31-03-90	5/00, 27/00, 27/12	154-J	IC.
167253	29-05-86	INTERNATIONAL BUSINESS MACHINES CORPORATION.	A printer for printing data on a print medium.	29-09-90	35/22	191- Group- XXXVII(2)	FC.
167333	24-04-86	INTERNATIONAL BUSINESS MACHINES CORPORATION.	A correction tape cartridge for a typewriter.	06-10-90	29/26	191- Group- —XXXVII(2)..	IC.

**B 41 L** : Apparatus or devices for manifolding, duplicating, or printing for office or other commercial purposes, addressing machines or like series-printing machines.

167665	03-10-86	KALAMAZOO PLC.	Cheque book assembly.	01-12-90	1/24, 1/26, 1/34	20A & 29B	FC
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**B 41 M** : Printing, duplicating, marking or copying processes; Colour printing

166848	25-05-87	BUSINESS FORMS LIMITED.	Pressure sensitive colour transfer sheet and process of making same	28-07-90	5/00	19	IC.
166880	28-11-85	NASHUACOR-PORATION	A coated sheet for use in a pressure-sensitive record element.	28-07-90	5/16	191	FC.

**B 43** : WRITING OR DRAWING APPLIANCES; BUREAU ACCESSORIES.

**B 43 K** : Instruments for writing; Drawing-pens.

166155	04-02-87	KOTOBUKI & CO. LTD.	Dual refill-writing utensil.	24-03-90	24/12, 21/02,	208- XLII(6)	FC.
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**B 43 L** : Articles for writing or drawing up, Accessories for writing or drawing.

165882	20-01-87	SHRI SAIBAL ROY.	Facsimile drawing instrument.	03-02-90	13/00	20-B	I.
166478	10-07-86	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH.	An improved process for the production of moulded slate with in built frame.	19-05-90	1/02	20-B	IC.
166999	16-06-88	THE RAJA BAHADUR MOTILAL POONA MILLS LTD.	An improved stand for use in a drafting machine.	18-08-90	13/02	86-E-GR. —LXVI(4)	IC.

1	2	3	4	5	6	7	8
<b>B 44 A : DECORATIVE ARTS.</b>							
<b>B 44 B : Machines, apparatus, or tools for artistic work, e.g. for sculpturing, guilloching, carving, brauding, inlaying.</b>							
166404	22-09-86	RAJESH VIREN SHAH. DR. RACHAPUDI HARA GOPALA RAU. DR. NISHIKANT DATTOBA TAMBAT.	Development of coloured stainless steels for architectural and decorative applications.	28-04-90	9/00	86-C	I.
<b>B 44 C : Producing decorative effects, Mosaics, Tarsia work, Paperhanging.</b>							
166404	22-09-86	RAJESH VIREN SHAH. DR. Rachapudihara Gopala Rau. DR. NISHIKANT DATTOBA TAMBAT.	Development of coloured stainless steels for architectural and decorative applications.	28-04-90	1/00	86-C	I.
<b>B 44 D : Painting or artistic drawing, not otherwise provided for: Preserving paintings, Surface treatment to obtain special artistic surface effects or finishes.</b>							
166404	22-09-86	RAJESH VIREN SHAH. DR. RACHAPUDI HARA GOPALA RAU. DR. NISHIKANT DATTOBA TAMBAT.	Development of coloured stainless steels for architectural and decorative applications.	28-04-90	5/00	86-C	I.
<b>B 44 F : special designs or pictures.</b>							
166404	22-09-86	RAJESH VIREN SHAH. DR. RACHAPUDI HARA GOPALA RAU. DR. NISHIKANT DATTOBA TAMBAT.	Development of coloured stainless steels for architectural and decorative applications.	28-04-90	1/00	86-C	I.
167655	08-09-87	LANXIDE TECHNOLOGY COMPANY.LP	Method for producing self-supporting ceramic composite bodies.	01-12-90	11/06	35-G,193	FC.
<b>B 60 : VEHICLES IN GENERAL.</b>							
<b>B 60 B : Vehicle wheels; Castors; Axles; Increasing wheel adhesion.</b>							
166227	15-05-86	GKN SANKEY LIMITED.	"Power-adjustable -variable-track wheel.	31-03-90	3/00, 17/00.	160-C, 205-C.	FC.
167693	26-06-87	PIERRE PATIN.	Improvements in or relating to inclinable multi-wheel vehicles.	08-12-90	11/00	160-A,C	FC.
<b>B 60 C : Vehicle tyres, Tyres inflation; Tyre changing or repairing, Repairing or connecting valves to, inflatable elastic bodies in general; Devices or arrangements related to tyres.</b>							
166131	29-10-85	THORVALD G. GRANRYD.	A retractable drive system for a rubber tired vehicle.	17-03-90	27/00	160A	F.



1	2	3	4	5	6	7	8
166340	18-12-85	M.A.M. MAS- CHINENFABRIK AUGSBURGNÜBNBERG AKTIEN GESELLSCHAFT.	Gravity-closing tongs for handling steel ingots, slabs or similar loads.	14-04-90	1/42	95-H	FC.
166759	02-06-86	B.F. GOODRICH COMPANY.	A radial type pneumatic tyre.	14-07-90	19/00	205A,H	FC.
166916	02-04-86	NRM COR- PORATION.	Tire engaging basket for a tire curing press transfer device.	04-08-90	19/00	205B	FC.
167180	23-02-84	MICHELIN & CIE (COMPAGNIE GENERALE DES ETABLISSEMENTS MICHELIN).	A tire and a method of manufacturing the same.	15-09-90	9/00	205-B & G-Group- LVI	FC.
167254	13-06-86	MICHELIN & CIE (COMPAGNIE GENERALE DES ETABLISSEMENTS MICHELIN).	Device for coding the value of two variable measured in a tire.	29-09-90	23/02, 23/10.	206-E- Group- LXII.	FC.
167588	25-02-87	THE GOODYEAR TIRE & RUBBER COMPANY.	A reinforced composite laminate for use in tires conveyor belts, or the like and a tire incorporating the laminate.	17-11-90	9/04	205-G LVI.	FC.
167661	12-06-86	NRM CORPORATION	"Machine for building tires."	01-12-90	5/00	205-G	FC.
167834	21-07-86	APSLEY METALS LIMITED.	A pneumatic tyre.	29-12-90	14/00, 15/04.	205-H	FC.
<b>B 60 D : Vehicle connections.</b>							
167184	17-03-86	AMSTED INDUS- TRIES INCOR- PORATED.	A railway coupler.	15-09-90	7/02	157-D4	FC.
<b>B 60 G : Vehicle suspension arrangements.</b>							
166195	15-06-87	THE BOLER COMPANY.	Improved tandem-axle walking beam suspension.	24-03-90	5/00	160-C	FC.
<b>B 60 H : Arrangements or adaptations of heating cooling, ventilating, or other air-treating devices specially for passenger or goods spaces of vehicles.</b>							
165992	29-01-86	SANDEN CORPORATION.	Improved swash plate compressor incorporating a device for detecting rotational speed.	24-02-90	3/00	134-A, 50-D.	FC.
166856	30-06-86	SANDEN CORPORATION.	Scroll type compressor.	28-07-90	3/00	50-D	FC.
<b>B 60 J : Windows, windcreens, non-fixed roofs, doors, or similar devices for vehicles, Protective coverings for vehicles not in use.</b>							
167638	21-07-86	L.G BALA- KRISHNAN & BROS LTD.	A window frame for a bus.	24-11-90	1/16	58-C Group- XXVI(3)	FC.

1	2	3	4	5	6	7	8
<b>B 60 K</b> : Arrangements or mounting of propulsion units or of transmissions in vehicles. Auxiliary drives; instrumentation or dashboards for vehicles; Conjoint control of drive units; Arrangements in connection with coding, air intake, gas exhaust, or fuel supply, of propulsion units, in vehicles.							
165966	25-06-82	HARRY FERGUSON LIMITED.	A drive transmitting member for use in a motor vehicle drive transmission.	17-02-90	17/34	160-C	FC.
167647	18-06-87	KIA MOTORS CORPORATION.	Power transfer apparatus and an automobile fitted therewith.	01-12-90	17/28	160-C	FC.
<b>B 60 L</b> : Electric equipment or propulsion of electrically-propelled vehicles. Magnetic suspension or levitation for vehicles; Electrodynamic brake systems for vehicles, in general.							
166570	26-01-86	AVTOKOMBINAT..	Trolley Bus current collector system.	09-06-90	5/00	160-C	IC.
<b>B 60 N</b> : Vehicle passenger accommodation not otherwise provided for.							
166077	05-09-88	BAJAJ AUTO LIMITED.	Cover for seats of two wheeler motor vehicles and such seats fitted with said cover	10-03-90	1/00	53-A.	IC.
<b>B 60 P</b> : Vehicles adapted for load transportation or to transport to carry, or to comprise partial loads or objects.							
167750	18-04-85	LeROY GL. HAGENBUCH.	A system for providing information of the weight of a load carried by a truck body which is pivotally mounted on a truck frame.	15-12-90	1/60	116-G Group-XLIX	F.
<b>B 60 Q</b> : Vehicle lighting or signalling.							
166764	29-12-87	BAJAJ AUTO LIMITED.	Flasher unit for flasher direction indication of motor vehicles.	14-07-90	1/46	160-C	IC.
167522	29-12-87	BAJAJ AUTO LIMITED.	A flasher unit for flasher direction indicator for motor vehicles.	10-11-90	1/46	113-1	IC.
<b>B 60 R</b> : Vehicles, vehicle fittings, or vehicle parts, not otherwise provided for.							
167752	09-07-86	PIAGGIO & C.S.P.A.	Two wheeler vehicle having a device for locking in particular a crash helmet or any article having like dimensions of a crash helmet.	15-12-90	27/00	134A	FC.
<b>B 60 S</b> : Servicing, cleaning, repairing, supporting lifting, or manoeuvring of vehicles, not otherwise provided for.							
165866	18-03-86	MITSUBA ELECTRIC MANUFACTURING CO. LTD.	Wiper driving unit.	03-02-90	1/04, 1/42.	26	FC.
166194	28-05-87	AUTOROBOT FINLAND KY.	Apparatus for rectifying bodies of motor-vehicles.	24-03-90	13/00	160-C	FC.
166477	17-06-86	CHAMPION SPARK PLUG EUROPE S.A.	Wiper arm.	19-05-90	1/02, 1/04, 1/06, 1/18.	134A	FC.
166588	25-07-86	CHAMPION SPARK PLUG EUROPE S.A.	A device for driving the wiper blades on the wind-screen of a motor vehicle.	09-06-90	1/02	134-A	FC.
166665	05-08-86	CHAMPION SPARK PLUG EUROPE S.A.	An improved wiper blade.	30-06-90	1/04	134-A	IC.
<b>B 60 T</b> : Vehicle brake control systems or parts thereof, Brake control systems or parts thereof, in general.							
165952	27-01-86	BROCKWELL INTERNATIONAL CORPORATION.	A vehicle brake system.	17-02-90	1/00, 7/00.	24E, F-LV, 127I-LXV(1) 134A-LII(1).	FC.
166133	10-12-85	CATERPILLAR INC.	A brake release mechanism for vehicle towing.	17-03-90	15/52	160-C	FC.

1	2	3	4	5	6	7	8
165257	23-01-85	LUCAS INDUSTRIES PUBLIC LIMITED/ COMPANY.	Servo assisted master cylinder assemblies.	07-04-90	11/16	150-C	FC.
165434	01-08-86	POCLAIN HYDRAULICS..	In a braking device with multiple effects such as an effect of parking and emergency braking via an elastic return member an effect of service braking by pressurized fluid control and an effect of release of brake by pressurized fluid control	05-05-90	13/00	24-D <sub>3</sub>	FC.
166569	16-01-86	LUCAS INDUSTRIES PUBLIC LIMITED COMPANY.	Pressure cylinder flange attachment.	09-06-90	11/16	160-C	FC.
166575	20-02-86	LUCAS INDUSTRIES PUBLIC LIMITED. COMPANY.	Brake pressure control valve.	09-06-90	15/36	160-C	FC.
166612	08-08-86	KELSEY-HAYES COMPANY.	Control valve for use in a vehicle skid control system.	16-06-90	1/00, 8/00,	160-A 15/00.	FC.
166699	30-06-86	LUCAS INDUSTRIES PUBLIC LIMITED COMPANY.	Wedge type brake actuator for motor vehicles.	30-06-90	1/06	34-A	FC.
166871	13-10-87	KELSEY HAYES COMPANY.	Device for monitoring the pressure in a fluid carrying conduit.	28-07-90	1/00, 8/00,	146-A 10/00	FC.
167017	26-08-86	BRANDIX FRANCE.	Automatically adjustable and thermally responsive lockable strut for a drum brake.	18-08-90	1/06	24-F	FC.
167145	18-03-86	LUCAS INDUSTRIES PUBLIC LIMITED COMPANY.	Hydraulic anti-skid braking system.	08-09-90	11/10	24-D <sub>1</sub> - Group-LV	FC.
167241	20-03-86	LUCAS INDUSTRIES PUBLIC LIMITED COMPANY.	Automatic adjuster for a vehicle brake.	29-09-90	1/06	24-E- Group- LV.	FC.
167437	28-05-86	LUCAS INDUSTRIES PUBLIC LIMITED COMPANY.	An electronically controlled braking system for a vehicle.	27-10-90	13/68 Group	24-C- LV.	FC.
167495	24-02-87	ALLIED CORPORATION	Dual circuit brake valve for heavy duty vehicle.	10-11-90	11/06	24-D <sub>2</sub> -LV	FC.
167658	10-10-88	BIMAN KUMAR PATHAK.	A mechanical regenerative braking device for wheeled vehicle or a rotary machine such as electric motor or generator.	01-12-90	17/00,	127-I	I.
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B 61	: RAILWAYS.						
B 61 F	: Rail vehicle suspensions, e.g. underframes, bogies, arrangements of wheel axles, Rail vehicles for use on tracks of different width Preventing derailling; Wheel guards, Obstruction removers or the like.						
166027	20-11-85	AMSTED INDUS- TRIES INCORPO- RATED.	A railway truck friction shoe pocket for accommodating a friction shoe therein.	03-03-90	5/04	157-D <sub>5</sub>	FC.
166901	06-09-89	BHARAT RASIKLAL GANGHI	An improved system of rail bogie wheel and complementary rail provided at the rail joints for Preventing jolts.	04-08-90	7/00, 13/00,	158E4- LII(2) .	I.
167150	02-04-86	MITSUBISHI DENKI KABUSHIKI KAISHA.	Apparatus for preventing turbulence in wheeled vehicles running on rail road tracks.	08-09-90	5/24	158B <sub>3</sub> & 174-G- Groups LII(2) & LII(4).	FC.

1	2	3	4	5	6	7	8
B 61 G : Couplings, Draught or buffing appliances.							
166018	06-09-85	AMSTED INDUSTRIES INCORPORATED.	An improved striker assembly apparatus for railway cars.	24-02-90	1/00	158-D	FC.
166138	01-01-86	AMSTED INDUSTRIES IN CORPORATED.	A slackless coupler connection for a railway car.	17-03-90	7/12	158-G	FC
166800	19-10-87	MCCONWAY & TORLEY CORPORATION.	Improved knuckle for a railway coupler.	21-07-90	3/06	158 C <sub>1</sub> & 2	FC
165893	30-01-86	DOWTY HYDRAULIC UNITS LIMITED.	Retarders for reducing the speed of a wagon rolling on a railway track.	03-02-90	7/08	157-E	FC.
167411	09-05-88	RAMESH BHOGILAL PARIKH, NIKHIL RAMESH PARIKH, RAJUL RAMESH PARIKH, SUDHIR RAMESH PARIKH.	Portable ultrasonic rail-tester.	20-10-90	9/10	89,126-A	I.
B 62 : LAND VEHICLES FOR TRAVELLING OTHERWISE THAN ON RAILS.							
B 62 D : MOTOR VEHICLES. TRAILERS.							
166131	29-10-85	THORVALD G. GRANRYD.	A retractable drive system for a rubber tired vehicle.	17-03-90	49/00	160-A	F.
166767	21-09-87	BAJAJ AUTO LTD, GAURI PRAKASH AGARWAL, SATISH BAPU-RAO BHALERAO, SATISH MADHUKAR GOKHLE.	A two wheeler motor vehicle with box at front for spare wheel.	14-07-90	43/08	160-A-II (3), 134-A-LIIVI.	IC. I.
166778	17-07-86	S.A. CONSTRUCTIONS FERROVIAIRES AT METALLIQUES.	A fast moving vehicle equipped with a self-guiding mechanism.	14-07-90	1/00, 11/20.	134-D	FC.
167245	11-04-86	CATERPILLAR TRACTOR CO.	A method of manufacturing a track joint with a controlled running clearance between opposing thrust surfaces of the track joint.	29-09-90	55/20	118-A-Group-XLV(2).	FC.
B 62 H : Cycle stands; Supports or holders for parking or storing cycles; Appliances preventing or indicating unauthorised use or theft of cycles; Locks integral with cycles; Devices for learning to ride cycles.							
166698	26-03-87	TUBE INVESTMENTS OF INDIA LIMITED	A centre stand assembly for use with a bicycle.	30-06-90	1/06	52-A-Group-LII(5)	IC.
B 62 J : Cycle saddles or seats; Accessories peculiar to cycles and not otherwise provided for, e.g. article carriers, cycle protectors.							
166077	05-09-88	BAJAJ AUTO LIMITED.	Cover for seats of two wheeler motor vehicles and such seats fitted with said cover.	10-03-90	1/18	53-A	IC.

1	2	3	4	5	6	7	8
166244	10-06-87	ATLAS CYCLE INDUSTRIES. ARUN KAPUR	An improved racing cycle.	31-03-90	39/00	53-A	IC, I.
167826	30-06-87	DIETER SCHUR-MANN AND BERNDGUDEREIT.	Dynamo for bicycles.	29-12-90	6/00	63-G	F.
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B 62 K		: Cycles; Cycle frames; Cycle steering devices; Rider-operated terminal controls specially adapted for cycles; Cycle axle suspensions; Cycle sidecars, fore-cars or the like.					
165789	25-07-84	KABUSHIKI KAISHA SHOWA SEISAKUSHC.	Front wheel fork for motorcycles.	13-01-90	21/02	53-E	FC.
165997	13-03-86	FRANCIS GEORGE KIRK.	Bicycle frame and bicycle.	24-02-90	3/02, 19/02.	53-E	F.
166182	06-03-86	DONOVAN PIL-KINGTON. ABEL OLWAGEN COETZEE.	A frame for a bicycle.	24-03-90	19/00	53-E	F.
165249	05-09-86	INTERNATIONAL BICYCLE CORPORATION.	A suspension mechanism particularly suitable for suspensions for vehicles.	31-03-90	25/00	160-D	FC.
166580	25-07-84	KABUSHIKI KAISHA SOWA SEISAKUSHO.	Front wheel fork for motor cycles.	09-06-90	21/02	53-E	FC.
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B 62 L		: Brakes specially adapted for cycles.					
166247	03-06-86	PIAGGIO & C.S.P.A.	Braking device for two-wheelers.	31-03-90	3/02, 3/04.	24-A	FC.
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B 62 M		: Rider propulsion of wheeled vehicles or sledges, specially adapted for such vehicles. Powered propulsion of sledges or cycles, Transmissions					
165915	22-11-83	BYUNG D. YIM.	A speed change mechanism for a lever propelled bicycle.	10-02-90	1/00	53-C	F.
166687	22-07-86	PIAGGIO & C.S.P.A.	Belt transmission unit for a vehicle provided with an engine start up device.	30-06-90	9/00	127-I LXV(1), 134A-LII(1).	FC.
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B 63		: SHIPS OR OTHER WATERBORNE VESSELS: RELATED EQUIPMENT.					
B 63 B		: Ships or other waterborne vessels, Equipment for shipping.					
165778	21-08-85	BRITISH AEROSPACE PUBLIC LIMITED COMPANY.	A system for open sea transfer of articles between one vessel and another.	06-01-90	27/12	160-B	FC.
165930	08-10-85	KEY OCEAN SERVICES, INC.	An improved method of assembling a mooring system in a vessel.	10-02-90	21/00	166-A	FC.
165938	17-04-86	THOMAS ROBERT ANDERSON	A novel sail assembly.	10-02-90	7/00, 9/00.	166-A,E.	F.
166922	19-12-85	INSTITUTE FRANCAIS DU PETROLE.	A device for receiving acoustic waves in water.	04-08-90	22/00	168 -E- Group-LI(4)	FC.

1	2	3	4	5	6	7	8
167536	11-06-86	JOHN.M. PALMER JR.	An aquatic vessel assembly.	10-11-90	7/08, 35/34.	6A <sub>2</sub> -GROUP-XLVII(1)	F.
167717	16-06-86	PROTEC A/S	A device for use in the protection of pipes in a splash zone on a rig construction at sea.	8-12-90	59/00	103-GROUP-XLV(1).	FC.
B 63 J : Auxiliaries on vessels.							
166730	16-10-84	HARSCO CORPORATION.	A structure for holding liquified gas.	14-07-90	2/14	6 B <sub>4</sub> , 166A.	FC.
167488	11-11-86	JOEL VERNEAUK.	Articulated coupling for boats in a pushing unit.	10-11-90	5/00	166-B	F.
B 64 : AIRCRAFT, AVIATION; COSMONAUTICS.							
B 64 C : Aeroplanes; Helicopters.							
166825	10-04-86	DOWTY BOULTON PAUL LIMITED.	Fluid-pressure-operable actuator for use in an actuator control device.	21-07-90	13/00	3-A, I	FC.
166967	16-07-86	AEROSPATIALE SOCIETE NATIONALE INDUSTRIELLE.	A rotor head having an integrated hub-mast for a gyroplane rotor.	11-08-90	27/04	4A <sub>4</sub> & 4C	FC.
167352	16-07-86	AEROSPATIALE SOCIETE NATIONALE INDUSTRIELLE.	An integrated hub-mast for a gyroplane rotor.	29-12-90	27/04	4(A4+C) —LIII(I)	FC.
B 64 D : Equipment for fitting in or to aircraft, Flying suits; Parachutes; Arrangements or mounting of power plants or propulsion transmissions.							
165810	18-12-85	AEROSPATIALE SOCIETE NATIONALE INDUSTRIELLE.	A device for deicing a wing structure.	13-01-90	15/00, 15/12.	4-A <sub>4</sub>	FC.
167654	24-06-87	UNITED TECHNOLOGIES CORPORATION.	An aircraft cabin air conditioning system.	01-12-90	13/00	196-B <sub>2</sub>	FC.
167809	30-01-87	SAYZEN LIMITED.	An aircraft surveillance system.	22-12-90	47/00	4-A <sub>1</sub> -GROUP-LIII(I).	FC.
B 64 F : Ground or aircraft-carrier-deck installations.							
167540	01-04-85	WICKES MANUFACTURING COMPANY.	Portable aircraft arresting apparatus.	10-11-90	1/02	4-A <sub>1</sub> —GROUP-LIII(I).	FC.
B 65 : CONVEYING; PACKING; STORING; HANDING THIN OR FILAMENTARY MATERIAL.							
B 65 B : Machines apparatus or devices for, or methods of, packaging articles or materials; Unpacking.							
165996	07-03-86	AZIONARIA COSTRUZIONI ; MACCHINE AUTOMATICHE, A.C.M.A., S.p.A.	Apparatus for folding and feeding card boards into a machine for packaging articles.	24-02-90	5/02, 41/00.	143-D <sub>5</sub>	FC.

1	2	3	4	5	6	7	8
166187	07-05-86	AZIONARIA COSTRUZIONI MACCHINE AUTOMATICHE, A.C.M.A., S.p.A.	A supply device for supplying flattened boxes to a packing machine.	24-03-90	35/00	23-A&H	FC.
166190	11-07-86	HAVER & DOECKER.	Filling machine for filling of valve bags.	24-03-90	5/00	143-D <sub>2</sub>	FC.
166479	11-07-86	HAVER & DOECKER	Mechanism for placing valve bags to be filled on the filling nozzle or nozzles of packing machine.	19-05-90	43/42	153-D <sub>3</sub>	FC.
166610	05-11-84	RIETER MACHINE WORKS LTD.	An apparatus for transporting conical thread packages.	09-06-90	35/46	100-B	IC.
166732	11-03-86	AZIONARIA COSTRUZIONI MACCHINE AUTOMATICHE, A.C.M.A. S.p.A.	Machine for wrapping bodies such as soap and the like.	14-07-90	11/00	143 D <sub>4,5</sub>	FC.
166997	03-03-88	PRİYAL KHANDE RAO KULKARNI AND VIJAY PRİYAL KULKARNI.	Improved sealing arrangement of mouth and evacuation valve on a reusable bag made from plastic film to store and preserve articles in vacuum.	18-08-90	31/04	99-E- XL(4) +179E& F-XL(6).	I.
167347	01-09-87	AB AKERLUND & RAUSING.	An apparatus for tightness control of a joint.	13-10-90	51/00	143-D <sub>4</sub> - Group- XL(5)	FC.
167675	02-07-86	DYNAMIT NOBEL AKTIEN- GESELLSCHAFT.	Apparatus for filling dangerous substances, in particular explosives, into containers.	08-12-90	1/04	143-D <sub>1</sub> - XL(5).	FC.

## B 65 C : Labelling or tagging machines, apparatus, or processes.

165934	13-03-86	SWARAN SINGH. SUSHIL KAUR.	An attachment for use with a labelling machine.	10-02-90	1/00	111	I.
166224	15-04-86	L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAIRE.	A reservoir for a cryogenic fluid.	31-03-90	5/02, 9/00	50-A	FC.
166598	28-09-84	METAL BOX PLC.	A machine for applying labels on an elongate body such as a can.	09-06-90	3/08	111	FC.
166738	02-05-86	SWARAN SINGH AND SUSHIL KAUR.	A labelling machine for affixing onto bottles or containers.	14-07-90	9/00	111	IC.
166863	20-02-86	OWENS-ILLINOIS GLASS CONTAINER INC.	Apparatus and method of manufacturing thermoplastic labelled containers by heat shrinking a wrap-around thermoplastic label on a container.	28-07-90	3/08	III-XLII(S), 143 01- XL(S)	FC.
166953	23-01-86	OWENS-ILLINOIS PLASTIC PRO- DUCTS INC.	Apparatus for forming hollow plastic articles.	11-08-90	9/10, 9/12	136-E&F- Group- XIII.	FC.

1	2	3	4	5	6	7	8
		<b>B 65 D</b>	: Containers for storage or transport of articles or materials, e.g. bags, barrels, bottles, boxes, cans, cartons, crates, drums, jars, tanks, hoppers, forwarding, containers, Accessories, closures, or fittings therefor, packaging elements, Packages.				
165751	06-11-85	KENNECOTT MINING CORPORATION.	Jacket device for an enamelled or glassed vessel used in chemical processing in lustry.	06-01-90	13/00	40-F	FC.
165804	05-12-85	COLGATE-PALMOLIVE COMPANY.	Improved laminate of layers of ethylene vinyl alcohol copolymer, metal foil, paper and collapsible paste dispensing container made therefrom.	13-01-90	35/00, 35/10.	155-F <sub>2</sub>	FC.
165840	05-12-85	COLGATE-PALMOLIVE COMPANY.	Improved laminate of layers of polypropylene metal foil and paper and a collapsible paste dispensing container) made of said laminate.	20-01-90	35/00, 35/10.	155-F <sub>2</sub>	FC.
165849	01-07-86	AMC-INTERNATIONAL ALFA METALCRAFT CORPORATION AG.	Process for manufacturing twin layer bottoms with filling of the hollow space.	27-01-90	1/00	99-A	FC.
165876	23-08-85	OWENS-ILLINOIS CLOSURE INC.	A closure for a finish of a container having a neck ring.	03-02-90	41/34	179-A	FC.
165897	21-02-86	VIVEK MULL.	A double chambered bottle for separate storage of two different substances.	03-02-90	1/20	22-XL(2)	I.
165900	25-02-86	J.C. ENTERPRISES B.V..	Flexible packaging container for pourable filling material.	03-02-90	77/06	99-M	FC.
166337	28-11-85	OWENS-ILLINOIS PLASTIC PRODUCTS INC.	A method of making a barrier plastic labelled hollow polyester or copolyester container and the container thereof.	14-04-90	25/14	99-F	FC.
166498	10-12-85	METAL BOX PUBLIC LIMITED COMPANY.	A container and a method for making the same.	19-05-90	41/32	99-B	FC.
166524	19-11-85	HUGH PATRICK CHRISTIE	Tea bag with a protective cover and a method for manufacturing the same.	26-05-90	85/00	99-H	F.
166573	06-02-86	OWENS-ILLINOIS CLOSURE INC.	A screw cap for closing the open upper finish of a container.	09-06-90	41/00, 55/02.	179-A	FC.
166646	18-11-85	OWENS ILLINOIS PLASTIC PRODUCT INC.	Coextruded multilayer sheet and touch sleeve label made therefrom.	30-06-90	53/00	155-F <sub>2</sub>	FC.
166647	18-11-85	OWENS-ILLINOIS PLASTIC PRODUCT INC.	Coextruded multi layer sheet adapted for use as a solvent seal sleeve label on containers.	30-06-90	53/00	15-F <sub>2</sub>	FC.
166770	17-08-88	JIMMY SORAB CANTEENWALLA.	An improved seal.	14-07-90	53/06	20B-XLII(2) 76H-LXIV-(4) 179E-XL(6).	I.
166887	09-07-85	HANS ADOLF SCHAEFFER.	A two compartment container for the storage and delivery of dental preparations useful in the treatment of gum disease.	04-08-90	35/22	99-H.	F.
166891	05-11-85	OWENS-ILLINOIS CLOSURE INC.	A tamper resistant child resistant snap-on closure for use with a container.	04-08-90	55/02	179-A	FC.
166994	23-12-87	KHARKAR ASHOK GANESH & SATHE RAMCHANDRA SHRIDHAR.	A reusable packing case.	18-08-90	6/34	23-XL(3). 23-E.	I.



1	2	3	4	5	6	7
167033	11-07-86	SANFORD REDMOND.	Dispenser package for flowable substance.	18-08-90	83/00 106	F.
167106	17-08-87	SOCIETE ANONYME DITE.	Folding packaging case.	01-09-90	6/00 99-H	FC.
167134	15-04-88	PRECISION MOULDINGS PVT. LTD.	An improved closure with collapsible spout having four pilfer resistant, seals and anti-spill means for container orifice/neck ring and the like.	01-09-90	41/00, 47/00, 179-E,G -XL(6).	IC.
167220	21-04-85	METAL BOX P.L.C.	A container having a cylindrical side wall and an end component and a method for making the same.	22-09-90	85/72 99-F-Group-XL(4).	FC.
167335	12-05-86	MAUSERWERKE GMBH.	A PLASTICS BUNG BARREL.	06-10-90	1/12, 1/20. 99-C-Group-XL(4).	FC.
167339	15-05-86	OWENS-ILLINOIS CLOSURE INC.	Closure with a snap type hinge cap.	06-10-90	41/16 179-F-Group-XL(6).	FC.
167399	25-06-85	OWENSILLINOIS PLASTICS PRODUCT INC.	A container.	20-10-90	1/00 22-Group-XL(2).	FC.
167480	25-11-88	SU HEUNG CAPSULE COMPANY LIMITED.	Capsule for drugs or like material.	03-11-90	83/04, 85/56. 179-C	FC.
167575	25-11-86	GUIFFRAY MICHEL.	An unoverturnable container for receiving liquids.	17-11-90	23/00 22,99-E-Group-XL(2), XL(4).	F.
167861	16-02-87	FRIED KHUPP GESELLSCHAFT MIT BESCHRANKTER HAFTUNG.	Discharge unit in containers such as cylindrical silos or bunkers, especially for sluggish and/or caking particulate materials.	29-12-90	88/00 116-G, 164-C	FC.
167863	15-07-87	DNERPRODZER-ZHINSKY VAGONOSTROITELNY ZAVOID IMENI GAZETY "PRAVDA".	Body for receiving and carrying hot bulk cargo.	29-12-90	90/00 160-A	FC.
167865	30-07-87	SOTRALENTZ S.A.	Improved transport/storage container support structure assembly.	29-12-90	6/00 179-F	FC.
B 65 G : Transport or storage devices, e.g. conveyors for loading or tipping, Shop conveyor systems, Pneumatic tube conveyers.						
165939	21-04-86	RAJIV SARIN.	A tube feeding device for a tube filling machine.	10-02-90	1/00 151-E,F	I.
166055	25-05-87	PHB WESERHUTTE AG.	Conveyor belt arrangement for the adjustment of the fall parabola of a material to be conveyed.	10-03-90	15/00 116-C	FC.
166175	10-09-85	MASCHINEN-FABRIK RIETER AG.	A transport duct for feeding fibre flocks to delivery chutes of clock processing equipment.	24-03-90	11/00 74	FC.
166219	06-11-85	PFISTER GMBH.	An apparatus for continuous metering and pneumatic feeding of pourable material.	31-03-90	53/00 40-P	FC.

1	2	3	4	5	6	7	8
165220	15-11-85	CHEVRON RESEARCH COMPANY.	Catalyst loading apparatus for uniformly distributing catalyst particles radially across a large diameter bed in a reactor vessel.	31-03-90	65/30	40-F	FC.
166246	27-05-86	O & K ORENSTEIN & KOPPEL AKTIENGESELLSCHAFT.	A crushing system for charging at least one top-loading crusher.	31-03-90	65/00	94-G & 116BD	FC.
165370	28-02-86	BINDER & CO. AKTIENGESELLSCHAFT.	Conveying device.	21-04-90	35/00	116-G	FC.
166356	28-12-87	BRIDGESTONE CORPORATION	A tubular belt conveyor.	09-06-90	23/00	116-C	FC.
166722	10-4-86	FULLER COMPANY.	An apparatus for conveying solid particulate material.	14-07-90	33/00, 33/28.	195-G 116-G	FC.
166758	15-05-86	AVONDALE INDUSTRIES INC.	Apparatus for actuating and locking hopper doors of a hopper car.	14-07-90	69/00	116-G	FC.
166805	26-03-87	CLAUDIUS PETERS AG.	A powder gravity filling device.	21-07-90	67/06	116-D	FC.
167085	29-01-86	EMC CORPORATION.	Container translating and orienting apparatus.	25-08-90	13/00	116-G Group-XLIX.	FC.
167128	27-11-84	DRG(U.K.) LIMITED.	An open-sided rail car tippler.	01-09-90	67/48	158-A&D Group-LII(2)	FC.
167129	27-11-84	DRG (UK) LIMITED.	Rail car tippler installations.	01-09-90	67/48	158-A & D -Group-LII(2)	FC.
167130	27-11-84	DRG (U.K.) LIMITED.	An open-sided rail car tippler having a rail car platform.	01-09-90	67/48	158-A & D Group-LII(2)	FC.
167243	04-04-86	VISH CHIMIKO-TECHNO LOGITCHESKI INSTITUT.	Screw for single-screw extruder.	29-09-90	33/14	19C & 129B-Groups-LXIV(1) & XXXV.	FC.
167790	00-03-83	TEKNOVATION ENGINEERS PVT. LTD.	An improved conveyor belt cleaner.	22-12-90	45/00, 15/00.	116-C, G	IC.
167810	28-10-87	MARTIN ENGINEERING COMPANY.	Conveyor belt cleaning apparatus.	22-12-90	45/00	116C, 116G Group-XLIX.	FC.

B 65 H : Handling thin or filamentary material, e.g. sheets, webs, cables.

165816	29-11-85	SOBREVIN SOCIETE DE BREVETS INDUSTRIELS Etablissement.	A device for delivering continuous threads.	20-01-90	54/28	116-G	FC.
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1	2	3	4	5	6	7	8
165996	07-03-86	AZIONARIA CONSTRUZIONI MACHINE AUTOMATICHE A.C.M.A., S.p.A.	Apparatus for folding and feeding card boards into a machine for packaging articles.	24-02-90	16/00	143-D <sub>5</sub>	FC.
166167	13-06-84	SULZER BROTHERS LIMITED.	Wet yarn insertion apparatus for a fluid Weaving loom.	24-03-90	51/16	119-B	FC.
166326	31-03-86	SULZER BROTHERS LIMITED.	An arrangement for storing filamentous material for picking in a weaving machine	14-04-90	75/00	119-B, E <sub>3</sub> -F <sub>4</sub> .	FC.
166405	22-09-86	TRUTZCHLER GMBH & CO. KG.	Device for feeding an opener or cleaner for textile fibre flocks.	28-04-90	51/00	155-E	FC.
166495	19-11-85	MASCHINEN FABRIK RIETER AG.	Device for removing individual textile bobbin tubes from a container.	19-05-90	54/02	116-H	FC.
166812	31-12-82	PREFORMED LINE PRODUCTS COMPANY.	A splice case for receiving a plurality of linear bodies to be spliced and for pro- tecting the splice from the environment.	21-07-90	31/00	48-A, - GROUP- LVIII(3).	FC.
166976	19-10-87	ZINSER TEXTIL- MASCHINEN, GMBH.	Vertically adjustable drawing frame for textile machines.	11-08-90	51/00	172C <sub>4</sub> XX	FC.
167086	31-01-86	MASCHINEN- FABRIK RIETER AG.	Yarn package holders.	25-08-90	75/02	172-E-XX	FC.
167100	30-11-84	RIETER MACHINE WORKS LIMITED.	An apparatus for producing a body of thread and a method of producing the same.	01-09-90	54/02	172-A&F GROUP- XX.	FC.
167257	28-07-86	SOBREVIN SOCIETE DE BREVETS INDUS- TRIELS- ESTABLISSEMENT	A yarn delivery device.	29-09-90	59/38	119-F <sub>6</sub> G-ROUP XXI(3).	FC.
167284	02-07-86	PORTALS EN- GINEERING LIMITED.	A "GATHERING MACHINE" useful in book binding.	29-09-90	39/00	79-ROUP XLII(3).	FC.
167476	13-07-88	ARUN KUMAR BHATTACHARYA.	Collapsible steel drums for cables.	03-11-90	75/34	48A3.	I.
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B 66		: HOISTING; LIFTING; HAULING.					
B 66 B		: Elevators, Escalators or moving walkways.					
166836	04-03-87	KONE ELEVATOR GMBH.	A point matrix display decoder pro- gramming means.	21-07-90	1/00	206-C	FC.
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B 66 C		: Cranes, Load-engaging elements or devices for cranes, capstains, winches, or tackles.					
167703	01-07-86	FIVES-CAIL BABCOCK, DENIS SERTAC S.A.	Equipment for the loading of bags and bulk materials onto ships.	08-12-90	23/61	116C,G- GROUP- XLIX.	FC.

1	2	3	4	5	6	7	8
167792	19-06-86	THOMAS CHACKO, INTEGRATED PROCESS AU- TOMATION PRIVATE LIMITED.	An electronic crane scale.	22-12-90	1/40	204- GROUP- XLI(10).	I,IC.
<b>B 65 D : Capstains, Winches, Tackles, e.g. pulley blocks, Hoists.</b>							
165195	21-05-87	HAGGLUNDS DENSION COR- PORATION.	Automatic control system for operating inhaul and outhaul winches.	24-03-90	1/40	116-H	FC.
<b>B 66 F : Hoisting, lifting, hauling or pushing, not otherwise provided for, e.g. devices which apply a lifting or pushing force directly to the surface of a load.</b>							
165990	26-12-86	HITACHI CON- STRUCTION MACHINERY CO. LTD.	Control system of hydraulic construction machinery.	17-02-90	9/24	71-C,E,F	FC.
167195	05-06-87	INDIAN INSTITUTE OF TECHNOLOGY.	A device for lifting and tilting an object having a cylindrical core.	15-09-90	9/12	116-D&G- GROUP- XLIX.	IC.
167644	21-11-86	O&K ORENSTEIN & KOPPEL AG.	Apparatus for transporting load units.	01-12-90	9/00	116-G	IC.
<b>B 67 : LIQUID HANDLING.</b>							
<b>B 67 B : Applying closure members to bottles, jars or similar containers, Opening closed containers.</b>							
165897	21-02-86	VIVEK MULL.	A double chambered bottle for separate storage of two different substances.	03-02-90	1/08	22XL(2), 179G, XL(6).	I.
<b>B 67 D : Dispensing, delivering or transferring liquids, not otherwise provided for.</b>							
167366	22-07-88	DALMIA INSTITUTE OF SCIENTIFIC & INDUSTRIAL RESEARCH.	Method for the manufacture of fused silica refractory articles.	13-10-90	5/37	28-C, 33-H, 35-E, 108-C3, 130-F	IC.
<b>B 68 : SADDLERY, UPHOLSTERY.</b>							
<b>B 68 G : Methods, equipment or machines for use in upholstering Upholstery not otherwise provided for.</b>							
166077	05-09-88	BAJAJ AUTO LIMITED.	Cover for seats of two wheeler motor vehicles and such seats fitted with said cover.	10-03-90	11/00	53-A	IC.

Note :—Classified list of the Complete specification under other "Sections" will be published in due course.

## REGISTRATION OF DESIGNS

The following design have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in Section 50 of the Design Act, 1911.

The date shown in the each entries is the date of the registration of the design included in the entry.

Class 1. No. 163639. NSL Limited of Nagarjuna Hills, Hyderabad-500 482, A.P., India. "Single guard rail for vehicles". October 1, 1991.

Class 1. No. 163640. NSL Limited of Nagarjuna Hills, Hyderabad-500 482, A.P., India. "Double guard rail for vehicles". October 1, 1992.

Class 1. No. 163641. NSL Limited of Nagarjuna Hills, Hyderabad-500 482, A.P., India. "Triple guard rail for vehicles". October 1, 1991.

Class 1. No. 163996. Freezland Refrigeration Corporation, 17-Ashok Nagar, Ludhiana-141 001, Punjab, India.

Indian Partnership Firm. "Strainer". January 10, 1992.

Class 3. No. 163604. Real Value Appliances Pvt. Ltd. of 801/802, Tulsiani Chambers, Nariman Point, Bombay-400 021, Maharashtra, India. "Container". September 18, 1991.

Class 3 No. 163995. Prakirti Plast Pvt. Ltd. of 7/62-Lane Gaushala, Agra-282 004, U.P., India an Indian Company. "Brush". January 10, 1992.

Class 3. No. 164068. Mohd. Atique of 1177, H.H.H. Punjabi Phatak, Ballimaran, Delhi-110 006, India, Indian National "Grille for Air Coolers", February 12, 1992.

Class 3. No. 164090. Saklaspur Venkatakrishnaiah Suresh, Indian of 40, Geetha Mansion, K. G. Road, Bangalore-560 009, Karnataka, India. "Coffee Filter". February 14, 1992.

R. A. ACHARYA  
Controller General of Patents, Designs  
and Trade Marks

